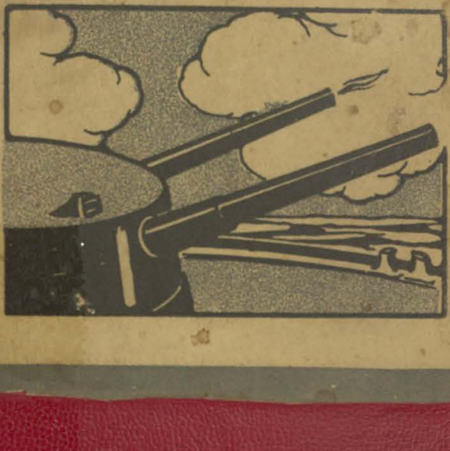
THE WAR BOOK OF FACTS

3,000 FIGURES & FACTS YOU WANT TO KNOW ABOUT THE CONDUCT OF WAR, THE PRESENT CRISIS & IT'S CAUSES



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THE EVENTS AND MEN THAT MADE THE WAR
MILITARY ORGANIZATION AND METHODS
FACTS AND FIGURES ABOUT THE WAR
NEW BUSINESS PROBLEMS RAISED BY WAR
MARTIAL LAW AND THE RULES OF WARFARE

SECOND EDITION

A. W. SHAW COMPANY, LTD.
34 NORFOLK STREET, W.C.
LONDON
1914

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CHAPTER I

Events Leading to the War

AFTER the exhausting struggles of the French Revolution, France fell fainting into the arms of Napoleon. Under his guidance she entered upon a new career of glory and conquest that came to a tragic end on the field of Waterloo. What France had gained in territory during the first period of the Napoleonic Wars she was destined to lose during the Hundred Days. After Waterloo, the German Powers demanded her dismemberment on the ground that it was essential to their safety. It was due to the counsel of Alexander I. of Russia, supported by the commonsense of Castlereagh and Wellington, that a "just equilibrium" was maintained, and France was spared the humiliation of coercive measures which would have left her smarting under a sense of injury.

The Peace of Paris in 1815 restored to France her traditional boundaries. The history of international politics in the years immediately following the Treaty of Paris is the history of an attempt to establish a system that would hold France in check and preserve the peace of Europe. Out of this real or fancied need arose that vague association of Powers, the invention of Alexander I. of Russia, known as the "Holy Alliance." By the terms of this alliance the high contracting parties bound themselves to co-operate in any movement deemed necessary in the interests of any or all concerned. England refused to take part in what Castlereagh described as "a sublime piece of mysticism and nonsense," on the ground that the contemplated "universal guarantee" would imperil the independence of small States.

England adopted her traditional attitude with reference to international engagements of a general

character; she refused to bind herself in such a way as to restrict her liberty of action under circumstances which could not be foreseen. Owing to the opposition of England—an opposition which later became a definite breach—the Holy Alliance never developed beyond the nebulous state which characterized it from its birth.

But the concert of the Powers which the Holy Alliance brought into being served the useful purpose of preserving peace in Europe and prepared the way for a marvellous economic development. The middle classes, especially in France, becoming more powerful through increase in wealth, established the bourgeois monarchy. The establishment of the independent kingdom of Belgium, the result of a successful revolt against Dutch domination, marked the first breach in the territorial settlement of 1815. In England, the passage of the Reform Bill in 1832 ended the agitation of the disenfranchised middle classes and averted a threatened revolution.

International politics between 1831 and 1841 were concerned mainly with questions arising out of the antagonism between the western constitutional Powers, France and England, and the autocratic eastern Powers, Prussia, Austria, and Russia. From this grouping of the Powers, based on political principles, arose the first entente between France and England, which lasted until 1840.

In the meantime the Holy Alliance had been reconstituted with Russia, Austria and Prussia as the high contracting Powers, and with Alexander I. in undisputed leadership. It proclaimed the principle of "divine right," as opposed to the liberal views advocated by France and England.

Louis Napoleon was really made President of France and then Emperor to carry on the work of his distinguished predecessor. Coming to power under such circumstances, it soon became evident that Napoleon III. was a menace to the peace of Europe. He represented the antithesis of everything for which the other great European Powers stood.

From the first he was committed to the principle of nationality; to the restoration of the "natural boundaries" of France. But, during the lull before the storm of war that was soon to break, there was a period of great industrial activity, during which inventive genius and engineering skill changed the face of France and profoundly altered the conditions of life. The Crimean War left France the most powerful nation in continental Europe, and the Congress of Paris, at which a higher conception of international law was proclaimed, shed additional glory on the Emperor. The Italian War of 1859 secured for France a part of the "natural boundary" to which she had aspired since 1815. The question now was whether she would be able to gain her other natural frontier on the Rhine.

In Germany great events were preparing. William I. had placed the supreme direction of Prussian affairs in the hands of Otto von Bismarck, who established the confederation of North German States, and laid the foundations of German power in the North Sea and of German rivalry with England in the future.

The inevitable conflict between Napoleon and Bismarck was not long delayed. The sudden menace of the new German power alarmed France, and negotiations were opened in the form of the offer of "compensations" for the restoration to France of the Rhine frontier. But Napoleon's intrigues with the South German States were exposed by the astute Bismarck, and Napoleonic diplomacy was discredited in the eyes of Europe.

The immediate cause of the rupture between France and Prussia, aided by the famous Enis telegrams, was the offer of the vacant Spanish throne to a prince of the house of Hohenzollern. While Napoleon hesitated, the war party in France fanned the flame of popular enthusiasm; and on the 18th of July, 1870, a declaration of war was sent to Berlin.

The hopes Napoleon had founded on the dissension of the South German States were belied, and

the object of Bismarck, the union of German States into a coherent whole, was accomplished. Crushing defeats were suffered by the French at Worth and at Sedan ; on the 19th of September, Paris was invested and, after a heroic resistance, surrendered. The imposing structure of the Second Empire fell to the earth, and was succeeded by a provisional republican government set up in Paris on September 24th, while William I. was proclaimed German Emperor, at Versailles, in the following January.

By the terms of peace France ceded to the German Empire Alsace (except Belfort) and Lorraine, with Metz and Thionville, and agreed to pay an indemnity of £200,000,000. Thus was established the powerful German Empire which was destined to become the first country in Europe, and whose ambitions were, from the first, a menace to all who stood in her path.

Other changes accompanied or followed the alteration in the balance of power which resulted from the decline of France and the rise of Germany. The Dual Monarchy (Austria-Hungary) had been established, Francis-Joseph being crowned King of Hungary. In Italy the unification of the kingdom had been accomplished, while in Rome the temporal power of the popes had come to an end.

Another outcome of the collapse of France was the denunciation by Russia of the Black Sea clauses of the Treaty of Paris of 1856, which was brought about by an entente between Russia and Germany. With these alterations in the boundaries and constitutions of States and this new alignment of Powers the history of Europe enters a new phase.

The dominating element in this new phase was the cordial friendship established between Germany and her powerful neighbour on the east, the Russian Empire, a friendship which began under the most favourable auspices. This friendship was part of Bismarck's policy, and another part was the conciliation of Austria. This latter task was not easy to accomplish, for Austria was far from satisfied with territorial settlements in Southern Europe which

had robbed her of part of her territory. As compensation for these losses Bismarck suggested the acquisition of Bosnia and Herzegovina. Bismarck's overtures to Austria were accepted with good grace, and at a conference between Bismarck and Andrassy, in which Russia was invited to participate, the Three Emperors' League was founded without any formal treaty being signed. The object which Bismarck had in view in forming this new alliance can only be conjectured, but a competent Russian authority was probably not far wrong in describing it thus: "To make Austria accept definitely her deposition as a Germanic Power, to put her in perpetual conflict with Russia in the Balkan Peninsula, and to found on that irreconcilable rivalry the hegemony of Germany." From the point of view of Germany's requirements it served two useful purposes; it preserved the *status quo* and protected the new German Empire from the only Powers in Europe she had occasion to fear.

But this friendship, based for the moment on mutual interests, could not bear the strains to which it was soon to be subjected. When Russia, by the reluctant consent of the European Powers, was allowed a free hand in the settlement of the Turkish question, she became the object of suspicion because of the use she made of her power in the treaty of San Stefano. At this point she naturally counted on the debt of gratitude which Bismarck had publicly acknowledged as owing to Russia because of her benevolent neutrality during the Franco-Prussian war. Now, instead of active support, Bismarck offered her the services of an "honest broker"—in Russia's eyes an inadequate performance of Germany's plain duty. "Needless to say," commented Prince Gorthakod, "in our eyes the Three Emperors' Alliance is practically torn in pieces by the conduct of our two allies. At present it remains for us merely to terminate the liquidations of the past and to seek henceforth support in ourselves alone."

Economic forces also were at work against which the diplomacy of Bismarck could not prevail. Russia

required financial assistance which France alone could offer; and Russian credit was fairly established on the Paris Bourse before Bismarck could take effective measures to prevent it. It was these measures, obviously aimed at Russian credit, which helped to alienate the Czar Alexander III. and bring to an end the recently revived "Three Emperors' League."

Thereupon Bismarck concluded with Austria-Hungary a formal defensive alliance which was avowedly aimed at Russia, and had as its secondary object the isolation of France. Italy, whose interests were certainly not identical with Germany's, and even opposed to those of Austria, was drawn into the Triple Alliance with these two countries by her actual or imagined need of protection from France, whose Tunisian policy had deeply offended her.

At this stage the affairs of Europe became fairly quiescent in regard to possible changes of boundaries and acquisition of further territory. A long period ensued in which all the countries of Europe, led by Great Britain, set out to exploit the empty places of the earth. Great Britain seized and developed a large slice of Africa. France and Germany followed suit. Italy also took a hand in the game. In the Orient all the European nations acquired stations and ports, Germany's "lease" or virtual seizure of Tsing-tao being especially resented by Japan. Spain was not strong enough to enter into this struggle, and in a disastrous war with the United States lost practically all her colonies. This led to an alteration of the balance of power in the Pacific, and in the final adjustment, or rather maladjustment, after a fierce war between Russia and Japan, Japan found herself in possession of Korea.

The rapprochement between Russia and France developed in due course into a definite alliance, the terms of which were known only to the two contracting parties. At first Russia was the dominant partner, but her position as a great power was so weakened by the Russo-Japanese War of 1904-5 that France was under the necessity of seeking elsewhere support that would

preserve the balance of power in Europe. As a means of escape from her partial isolation only two avenues were open to France: a rapprochement with Germany would mean a complete change in the orientation of French policy and would involve the abandonment of Alsace-Lorraine; while a rapprochement with England would mean the loss of French influence in Egypt. As between France and England, there existed a bond of sympathy in the similarity of their political and social ideals which was entirely lacking as between France and Germany. The Anglo-French Entente was a logical result of the European situation, and it was but natural that it should be based upon a free hand for France in Morocco and a free hand for England in Egypt. The balance of power thus restored preserved the peace of Europe and made possible the amicable settlement of disputes which might otherwise have led to war.

Four times in the last decade the danger of a general European war has become acute. The first time in 1904 on account of agreements entered into by Great Britain, France and Spain as to the control of Morocco, which, as a result, virtually became a French Protectorate; the German Kaiser objected strenuously, but in January, 1906, an international congress was held at Algeciras at which affairs in Morocco were temporarily adjusted with the co-operation of Germany. Again in 1911 Germany complained of the extent of France's occupation of Morocco, and sent two warships to Agadir; England plainly stated that she would stand by France, and Germany had to be satisfied with receiving a slice of French Congo territory.

In 1908, the Balkans offered the chance of a general war. Austria, which had since 1878 administered the Provinces of Bosnia and Herzegovina on her southern frontier, although they were nominally Turkish provinces, formally annexed them. Russia protested and other Powers objected, but this time Germany stood by her ally and Russia yielded.

The territorial changes resulting from the events of 1908 were insignificant; Bulgaria became really, instead of nominally, independent; Bosnia and Herze-

govina became really, instead of nominally, dependent; Germany supported her ally Austria in urging the recognition of the *fait accompli;* and German representations at St. Petersburg brought about a sudden change of attitude on the part of Russia.

In the latter part of 1911 European peace was endangered by the war which broke out between Italy and Turkey concerning Tripoli. This had relatively slight consequences, except that Italy acquired 400,000 square miles of territory in Tripoli. But a year later war broke out in the Balkans, by which at first the Balkan allies, consisting of Bulgaria, Servia, and Greece, conquered Macedonia, Albania, and the greater part of Thrace from Turkey. But when after peace the Balkan League dissolved, war broke out between Servia, Greece and Montenegro against Bulgaria, Rumania and Turkey later intervening.

The Balkan Wars of 1912-1913, by limiting the territory and influence of Turkey in Europe, disturbed the existing balance of power and erected between Turkey and Europe a new and greatly strengthened Slavic barrier against Austrian ambitions.

In the meantime Germany resolved upon substantial increases in both military and naval expenditure. Concurrently with these preparations a press campaign of more than usual violence was directed alternately against Russia and France, England for the moment being treated with respect or invited to join in negotiations of a friendly character.

On June 28th, 1914, the Archduke Francis Ferdinand, Heir-Apparent to the Austrian Throne, together with his morganatic wife, the Duchess of Hohenberg, were murdered by a Servian in the streets of Serajevo, the capital of Bosnia.

This tragic event, occurring at a time when national antipathies had hardly recovered from the excitement of the Balkan War, naturally aroused in Austria the deepest feelings of resentment and horror. The unfortunate circumstance that the assassin was a Servian gave colour to the charge that the crime was instigated by the Servian Government; that it was in fact the

culminating outrage that had followed the policy of "pin pricks" which had so long disturbed Austro-Servian relations. That under the circumstances Austria was justified in demanding redress from Servia no one denied. What form Austria's demands would take was not, however, a matter of interest to Austria and Servia only. That it should not take the form of acquisition of Servian territory was the sole concern of the European powers with the exception of Germany.

It was nearly three weeks before Austria took her first step, the presentation of an ultimatum, couched in terms so offensive and peremptory as to preclude the possibility of a favourable reply. To the surprise of everyone Servia, after listening to the advice of Russia, accepted every demand except two, and these she requested should be referred to The Hague Tribunal on the grounds that they threatened her existence as a sovereign state. Austria's reply took the form of immediate withdrawal of the Austrian Minister from Belgrade; and this step was at once followed by an attack on the Servian frontier.

Germany's position at this time was one of nominal detachment accompanied by proffers of service in communicating advice. While the situation was one of extreme tension it was generally believed that, as none of the Powers desired to precipitate a general European war, the conflict could be localized. Subsequent events clearly indicate that this feeling of optimism was not well-founded, that in certain quarters war was not only desired but planned, and that the crime of Serajevo was a welcome pretext for executing, under favourable conditions, a design of which the main object was the alteration of the balance of power in Europe.

The history of the events leading up to Germany's declaration of war first on Russia, then on France, the efforts made by England to bring about a conference of the Powers in London, and finally the British ultimatum to Germany, may best be gleaned from the following summary taken from the White Paper entitled "Correspondence respecting the European Crisis."

On July 24 the Russian Minister for Foreign affairs informed the English Ambassador at St. Petersburg that Austria's conduct was both provocative and immoral; she would never have taken such action unless Germany had first been consulted; some of her demands were quite impossible of acceptance. He hoped that Great Britain would not fail to proclaim her solidarity with Russia and France.

On July 24 the German Ambassador in London communicated the following note:

> The German Government want to emphasize their opinion that in the present case there is only a question of a matter to be settled exclusively between Austria-Hungary and Servia, and that the Great Powers ought seriously to endeavour to reserve it to those two immediately concerned. The Imperial Government desire urgently the localization of the conflict, because every interference of another Power would be followed by incalculable consequences.

On the same date Sir Edward Grey advised the British representative at Belgrade as follows:

> Servia ought to promise that, if it is proved that Servian officials, however subordinate, were accomplices in the murder of the Archduke at Serajevo, she will give Austria the fullest satisfaction. She certainly ought to express concern and regret. . . . I urged upon German Ambassador that Austria should not precipitate military action.

On the next day the English Ambassador at St. Petersburg wired Sir Edward Grey, in part, as follows:

> On my expressing the earnest hope that Russia would not precipitate war by mobilizing until you had time to use your influence in favour of peace, his Excellency assured me that Russia had no aggressive intentions, and she would take no action until it was forced on her. Austria's action was in reality directed against Russia. She aimed at overthrowing the present *status quo* in the Balkans. He did not believe that Germany really wanted war, but her attitude was decided by ours. If we took our stand firmly with France and Russia there would be no war. If we failed them now, rivers of blood would flow, and we would in the end be dragged into war.

The following significant message was dispatched on July 26 by the English Ambassador at Berlin to Sir Edward Grey:

> Emperor returns suddenly to-night, and Under-Secretary of State for Foreign Affairs says that German Foreign Office regrets this step, which was taken on His Majesty's own initiative. They fear that His Majesty's sudden return may cause speculation and excitement.

On July 29 events suddenly took a grave turn. The repeated efforts of Sir Edward Grey to bring about a conference of the Powers had been defeated by the uncompromising attitude of Berlin. The following dispatch from the English Ambassador at Berlin clearly indicates Germany's intention of attacking France provided she could count on the neutrality of Great Britain :

I was asked to call upon the Chancellor to-night. He said that should Austria be attacked by Russia a European conflagration might become inevitable owing to Germany's obligations as Austria's ally, in spite of his continued efforts to maintain peace. He then proceeded to make the following strong bid for British neutrality. He said that it was clear, so far as he was able to judge, the main principle which governed British policy, that Great Britain would never stand by and allow France to be crushed in any conflict there might be. That, however, was not the object at which Germany aimed. Provided that neutrality of Great Britain were certain, every assurance would be given to the British Government that the Imperial Government aimed at no territorial acquisitions at the expense of France, should they prove victorious in any war that might ensue. I questioned his Excellency about the French colonies, and he said that he was unable to give a similar undertaking in that respect. As regards Holland, however, his Excellency said that, so long as Germany's adversaries respect the integrity and neutrality of the Netherlands, Germany was ready to give his Majesty's Government an assurance that she would do likewise. It depended upon the action of France what operations Germany might be forced to enter upon in Belgium, but when the war was over Belgian integrity would be respected if she had not sided against Germany.

Sir Edward Grey's reply to this interesting proposal was dispatched on the following day :

H.M. Government cannot entertain the Chancellor's proposal that they should bind themselves to neutrality on such terms. What he asks us in effect is to engage to stand by while French colonies are taken and France is beaten so long as Germany does not take French territory as distinct from the colonies. From the material point of view such a proposal is unacceptable, for France, without further territory in Europe being taken from her, could be so crushed as to lose her position as a Great Power, and become subordinate to German policy. It would be a disgrace for us to make this bargain with Germany at the expense of France, a disgrace from which the good name of this country would never recover. The Chancellor also asks us to bargain away whatever obligation or interest we have as regards the neutrality of Belgium. We could not entertain that bargain either.

On July 31 a German ultimatum demanding the demobilization of the Russian forces was addressed

to Russia. In the meantime an identical note on Belgium neutrality had been dispatched by Sir Edward Grey to France and Germany. France replied at once agreeing to respect it, while Germany refused on the grounds of alleged acts of mobility on the part of Belgium.

News came that the Germans had violated the neutrality of Luxemburg. On August 2 Sir Edward Grey informed the French Ambassador at London to the following effect:

> I am authorized to give an assurance that, if the German fleet comes into the Channel or through the North Sea to undertake hostile operations against French coasts or shipping, the British fleet will give all the protection in its power.

With the news that the German Army had also violated the neutrality of Belgium, and had detained British ships, Sir Edward Grey addressed a final telegram to the British Ambassador in Berlin:

> We hear that Germany has addressed note to Belgian Minister for Foreign Affairs stating that German Government will be compelled to carry out, if necessary, by force of arms, the measures considered indispensable.
>
> We are also informed that Belgian territory has been violated at Gemmenich.
>
> In these circumstances, and in view of the fact that Germany declined to give the same assurance respecting Belgium as France gave last week in reply to our request made simultaneously at Berlin and Paris, we must repeat that request, and ask that a satisfactory reply to it and to my telegram of this morning be received here by 12 o'clock to-night. If not, you are instructed to ask for your passports, and to say that His Majesty's Government feel bound to take all steps in their power to uphold the neutrality of Belgium and the observance of a treaty to which Germany is as much a party as ourselves.

At midnight of August 4 Great Britain declared war on Germany, and within a fortnight Germany and Austria on one side and Great Britain, France, Russia, Servia, Belgium and Japan on the other, were at war.

CHAPTER II

The Men in the Public Eye During the Present Crisis

ADAIR, Gen. Sir W. T., K.C.B., in command of the Royal Marine Light Infantry.

ADDISON, Dr. Christopher, M.P., Parliamentary Secretary to the Board of Education, holds a commission as surgeon-captain in the York and Lancaster Regiment.

ALBERT, H.R.H. Prince, the King's midshipman son, who is 19 years old, was on board H.M.S. *Collingwood*, the flagship of the First Battle Squadron. In the whole ship's company none is keener on his duties or throws himself more whole-heartedly into the spirit of the stern game of war than the second son of our King. There are nearly five hundred midshipmen serving in the Navy, representing almost every famous English family.

ALBERT, King of the Belgians, born in 1875, succeeded his uncle, Leopold II., on December 17, 1909. In October, 1900, he married the Duchess Elizabeth of Bavaria, and three children have been born to him. He is cousin, a few times removed, of King George, his father (the Count of Flanders) and his uncle (Leopold II.) being first cousins of Queen Victoria. It is interesting to recall that his father, the Count of Flanders (who died over eight years ago, and who was born just before Queen Victoria ascended the throne) was given the name of George in honour of St. George of England and of our George IV. In his private life he is a man of many varied interests. He is an author of distinction, a keen aviator, and a student of warfare and military tactics.

ALLENBY, Major-General Edmund Henry, C.B., is in command of the Cavalry Division. Born in 1861, he entered the army in 1884, and at once saw active service in the Bechuanaland Expedition. He took part in the Zulu campaign of 1888, and during the South African war he was twice mentioned in dispatches.

ASQUITH, Rt. Hon. Herbert H., Prime Minister of Great Britain since 1908. Born in Morley, Yorks, September 12, 1852. Educated at Balliol College, Oxford. Came to London as a Barrister in 1876. Has been a Member of Parliament for East Fife since 1886.

BARWIZ, General, a German soldier who has succeeded the late General von Emmich as commander of the forces besieging Liége.

BATTENBERG, Prince Louis of. Born in 1854, he married Victoria, daughter of Louis IV. of Bavaria, in 1894. He subsequently became

an admiral of the British Fleet, and in 1912 was appointed to be First Sea Lord of the Admiralty. He has also held the position of head of the Naval Intelligence Department.

BAYLY, Vice-Admiral Sir Lewis, commands the First Battle Squadron in the new battleship *Marlborough.* He is 56 years of age, and has been in the Navy since 1870. He first made his mark as a torpedo specialist, winning the £80 prize for this branch at Greenwich College in 1884. As Commodore of the Home Fleet destroyers he did much to promote the efficiency of the flotillas, and was afterwards placed in command of the War College from 1908 to 1911. Since then he has commanded the First Battle-Cruiser Squadron for two years, and the Third Battle Squadron for a year, his present command dating from June 22 last.

BEATTY, Rear-Admiral Sir David, commanding the First Battle-Cruiser Squadron, in H.M.S. *Lion*, won early promotion to the rank of captain for gallantry in China in 1900, so that he reached flag rank at the age of 39. Since then he has been Naval Secretary to the First Lord, and he took up his present command in March, 1913. His well-known courage and dash should find full scope with the splendid battle-cruisers in the squadron of which he is in charge.

BETHELL, Vice-Admiral the Hon. Sir A. E., K.C.B., K.C.M.G., on board H.M.S. *Prince George*, is Vice-Admiral Commanding Battleships of Third Fleet. He has been in command of the Royal Naval War College since 1912, when he relinquished the command of our naval forces in the East Indies.

BETHMANN-HOLLWEG, Dr. Theobald, Chancellor of the German Empire, and Prussian Minister of the Council and Minister of State for Foreign Affairs since 1909. Born in Brandenburg, 1856. Enterred the Civil Service in 1879. Has held various offices and cabinet ministries since 1899. Doctor of Laws, and General Lieutenant in the Prussian Army.

BOUÉ DE LAPEYRÈRE, Vice-Admiral, Commander-in-Chief of the French fleet.

BRADFORD, Vice-Admiral E. E., in the Third Battle Squadron, has charge of our principal pre-Dreadnought battleships, in one of which, the *King Edward VII.*, he flies his flag. He is a gunnery specialist. Entering the service in 1872 he was in the Egyptian War of 1882. In 1890 an essay from his pen on the maritime defence of the United Kingdom and its trade in a war with a naval Power was placed second in the competition for the United Service Institution's gold medal. For some time he was Sir Arthur Wilson's flag captain in the Channel Fleet, and as a rear-admiral he was in the Second Division of the Home Fleet in 1909-10 and in command of the Training Squadron in 1911-13.

BRIDGES, Brigadier-General William Throsley, commander of the contingent which Australia is sending to help the Mother Country, went to South Africa with the Commonwealth Force, and was

present at some of the chief engagements of the campaign. The son of a naval officer who settled in New South Wales, General Bridges, after a military education in Canada, joined the Royal Australian Artillery nearly 30 years ago. A quarter of a century later he was appointed Commandant of the Royal Military College of Australia at Duntroon. He had previously acted as Chief of the General Staff of the Commonwealth Army.

BROWNING, Rear-Admiral M. E., flying his flag in the *Hibernia* as chief of the Third Battle Squadron, has been in the Navy since 1876, and is now 51 years old. He was injured on peace service, losing his left hand in an accident in the *Inflexible* in 1889. He has twice seen war service, in Egypt (1882), and in the China rebellion of 1900, being mentioned in dispatches for his ability in the latter.

CAMPBELL, Rear-Admiral H. H., C.V.O. Flagship: H.M.S. *Bacchante*. Is Assistant-Director of the Naval Intelligence Department. Born in 1865, he was in command of H.M.S. *Terrible*, escort to the Prince and Princess of Wales during their visit to India in 1905-6.

CHURCHILL, Rt. Hon. Winston Leonard Spencer, is not yet forty years of age, and has the distinction of being the youngest First Lord who ever presided at the Admiralty. By common consent he has imported to the Naval Administration of our country an audacity and an energy never before brought to bear upon the Service. Few public men have had a more adventurous career. He entered the Army in 1895 and soon afterwards served with the Spanish forces in Cuba during the Spanish-American War. He again saw active service a year later in Egypt. During the Boer War he acted as correspondent of the *Morning Post*. Soon after the outbreak of hostilities he was made prisoner, but within a month he succeeded in making his escape from Pretoria. In addition to his active military and political career he is an author of repute. Since his appointment as First Lord of the Admiralty he has been down in submarines and up in aeroplanes, and is familiar with the smallest naval detail at first hand.

CODRINGTON, Lieutenant-General Sir Alfred, C.V.O., entered the Coldstream Guards in 1873. He served throughout the Egyptian campaign of 1882, was mentioned in dispatches and was decorated by the Khedive. In 1908-9 he was in command of the London Division of the Territorial Force. He is a member of the British War Council, and Military Secretary to Lord Kitchener.

COWANS, Major-General Sir J. S., K.C.B., M.V.O., Quarter-Master-General to the Forces, and third military member of the Army Council. He is a noted organizer of personnel.

DE BUNSEN, Rt. Hon. Sir Maurice, G.C.M.G., K.C.V.O., British Ambassador at Vienna at the outbreak of war. He was formerly Ambassador at Madrid. Of all the diplomats affected by the war, he was almost the last to ask for his passport, which was only done when every possible endeavour to preserve peace between Great Britain and Austria was futile.

DE GUISE, General, whose name came into prominence during the siege and defence of Liége. He was second in command, and to his energy more than to any other man was due the fierce defence of the forts. He was a pupil of the celebrated General Brialmont, "the Vauban of our time," who designed the fortifications of Liége, Antwerp, Namur, Bucharest and other places.

DELCASSÉ, M. Théophile, one of the ablest French statesmen. His appointment as French Minister of War made the 59th change in that post since the establishment of the Third Republic, forty-three years ago. As, however, several statesmen have filled the post more than once, it has had only 33 different occupants under the Republic. Still, this record compares unfavourably with that of the German War Office, which has had but six different chiefs since 1871; while during the same period we have had fourteen different War Secretaries. He first came into public notice as Colonial Minister in 1894. He was made Minister of Foreign Affairs in 1898, but was compelled to resign office in 1905, his resignation being practically demanded by Germany as an alternative to war. His chief achievement was the tactful way in which he settled the differences between France and Great Britain over the question of the occupation of Fashoda.

DOUGLAS, General Sir C. W. H., G.C.B., A.D.C., Colonel Commanding Gordon Highlanders, Chief of the Imperial General Staff, and first military member of the Army Council. He was born in 1850, and has held administrative posts in the Army since the Afghan War of 1879.

DRISCOLL, Lt.-Col. Daniel P., D.S.O., Chief Executive Officer of the Legion of Frontiersmen. He won his D.S.O. and medals in South Africa.

DUMONT, Santos, a famous aviator who has offered his services to the French Government.

EUGÉNIE, Widow of Napoleon III., Emperor of the French. The Empress, who has lived in England for many years, has offered her yacht *Thistle* as a war hospital.

EVAN-THOMAS, Rear-Admiral Hugh, M.V.O., is serving in the First Battle Squadron, with his flag in H.M.S. *St. Vincent*. He was in command of Dartmouth College in 1910-12. He is 51 years of age, and entered the Navy in 1876. His career has been associated with that of Admiral Lord Charles Beresford.

FARQUHAR, Vice-Admiral Arthur Murray, C.V.O., has been in command of the Coast Guard and Reserves since 1912. Upon him now falls the responsibility of organizing the watch which is maintained day and night around the accessible portions of the coast of Great Britain. He has been decorated by the French Government. He was born in 1855 and entered the Navy in 1868.

FRANCIS-JOSEPH I., King of Hungary and Emperor of Austria, was born on August 18, 1830. He succeeded his uncle Ferdinand I. on December, 1848. The alleged murder of his heir by Servians was the nominal occasion for a proclamation of war between Austria and Servia, an event which led to Russian mobilization and the subsequent developments involving France, Germany, Belgium and Great Britain.

FREDERICK-WILLIAM, Crown Prince of Germany, born in 1882, has yet to win his spurs on the field of battle. As to his ability reports are conflicting. Some assert that he is a chip of the old block, others that he is imbued with most of the Kaiser's vices and but few of his virtues. His leaning towards militarism and things military was recently revealed in the preface of an illustrated gift-book which he wrote, entitled "Germany in Arms," and on which he stated that: "Though the world were full of devils in arms against us, we shall outmatch them, be the stress of the hour what it may." He was honorary Colonel-in-Chief of our 11th Hussars.

FRENCH, Field-Marshal Sir John, K.C.M.G., G.C.B., K.C.B. Sir John French, Inspector-General of the Army, was one of the few officers, says a military expert, whose reputation did not find an untimely grave in the South African War. It was the cradle of his. Before that he had distinguished himself as an astute and gallant leader of cavalry in the Sudan. He was one of the luckless officers at the head of a mere handful of troops who endeavoured to rescue General Gordon. He fought the two opening engagements of the South African War in Natal. He left Ladysmith in the last train before the siege (having realized the uselessness of cavalry for the coming siege). He then took a glorious part in the relief of Kimberley, and in the subsequent operations against Cronje. He, too, was the general who cleared up the war after Lord Robert's departure. It has been said of him that "in character he is a man of cold persistence and of fiery energy, cautious and yet audacious, weighing his actions well, but carrying them out with the dash that befits a mounted leader. He is remarkable for the quickness of his decision, alert, resourceful, and determined. Born in 1852 he joined H.M.S. *Britannia* in 1866 and served as a midshipman in the Royal Navy for four years. He entered the Army in 1874.

GAMBLE, Vice-Admiral Sir Douglas, K.C.V.O., with his flag in H.M.S. *Dreadnought*, is in command of the Fourth Battle Squadron. He was born fifty-seven years ago and has been in the Navy since 1870. He was selected in 1909 as Naval Adviser to Turkey. He is A.D.C. to the King, and the oldest Admiral of the High Seas Fleet.

GAULT, Hamilton, of Montreal, a public-spirited Canadian, who is equipping a Canadian Regiment at his own expense.

GEORGE V., King of Great Britain and Ireland, Emperor of India. Born June 3, 1865 ; succeeded his father, Edward VII., May 6, 1910. His Majesty has kept in the closest possible touch with the development of the war, and has initiated and assisted several organized

means to secure the alleviation of the inevitable suffering and distress associated with the conflict. His Majesty's solicitous care is shown in the message addressed to the Fleet through Admiral Sir John Jellicoe: "At this grave moment in our national history, I send to you, and through you to the officers and men of the fleets of which you have assumed command, the assurance of my confidence that under your direction they will revive and renew the old glories of the Royal Navy, and prove once again the sure shield of Britain and of her Empire in the hour of trial.—GEORGE, R.I."

GEORGE, Prince, of Prussia, a nephew of the German Emperor, was taken prisoner by the Allies in the early days of the war.

GEORGE, Prince, of Servia, was wounded and rendered unconscious by a shell at Belgrade, at the outbreak of hostilities between Austria and Servia. His exploits have earned for him the nickname of the "Bad Boy of Europe." Five years ago he formally renounced his rights, as Crown Prince and as King Peter's eldest son, to the throne of Servia.

GOFFINET, Baron, a distinguished Belgian soldier who is Aide-de-Camp to King Albert.

GOODENOUGH, Commodore W. E., M.V.O., in command of the First Light Cruiser Squadron, his pennant flying from H.M.S. *Southampton.* He is 47 years of age, and joined the Royal Navy in 1880. In H.M.S. *Cochrane* he escorted the King on his voyage to India. He was in command of the Royal Naval College, Dartmouth, in 1905-7.

GOSCHEN, Rt. Hon. Sir William Edward, G.C.B., K.C.M.G., G.C.V.O., was British Ambassador at Berlin before the war. He was born in 1847, and has had a distinguished diplomatic career.

GOUGH-CALTHORPE, Rear-Admiral the Hon. S. A., C.V.O., commanding the Second Cruiser Squadron, in the *Shannon*, is a torpedo officer of scientific attainments. He was born in 1864 and joined the Navy in 1886. He was promoted to the rank of commander for services during the Brass River and M'Weli expeditions and on the West and East African coasts in 1895, and during the Russo-Japanese War was Naval Attaché at St. Petersburg.

GRANT, Rear-Admiral William L., C.B. Flagship: H.M.S. *Drake.* Born 1864; entered Navy 1877. Served in Egypt. Was naval adviser to the Army Council and attached to the Home Fleet for special service in 1910.

GREY, Rt. Hon. Sir Edward, Secretary of State for Foreign Affairs, whose negotiations with the various Governments of Europe preceding the war are admitted to have been of the wisest kind. He was born in 1862, and has been M.P. for Berwick since 1885. To him fell the duty of announcing to the House of Commons that Great Britain would support France against Germany. A writer in *The Globe*, referring to his speech, said: "Without any histrionics or straining for effect, though with the ring of honest indignation in

his voice, he spoke out as the House has never heard him speak before. As he stood at the box, calm, resolved, confident in the justice of his cause, one realized the esteem with which his name is regarded in every foreign capital, and felt that it would be an honour to be worsted by such a man."

GROUITCH, Mons., the Servian Permanent Under-Secretary for Foreign Affairs.

HAGGARD, Major Arthur, Chairman of the Veteran's Corps. Born 1860. Educated at the Royal Military College. Joined Army, 1884, and served in Egypt and South Africa.

HAIG, Lieutenant-General Sir Douglas, K.C.B., K.C.I.E., K.C.V.O., A.D.C., is in command of an army corps with the British Expeditionary Forces in France.

HALDANE, Lord, Lord High Chancellor of England since 1912. Lord Haldane, has proved his ability in many directions, but in none more than in his work as a military organizer. The modern mobilization regulations are an innovation in this country, and are in a great measure due to his wonderful foresight. The smoothness and celerity with which they have been carried out is the best of testimony to his ability. Born in 1856, he was educated partly in this country and partly in Germany. The knowledge he acquired on the Continent, and his subsequent visits to Berlin, enabled him to perfect our own war preparations when he assumed the onerous post of War Secretary. He is a man of extraordinary versatility and of exceptional energy, who combines the philosophical mind with the keen and practical brain of the great organizer. He was born in 1856. Since the declaration of war, Lord Haldane has been working at the War Office in association with Lord Kitchener, the present Secretary of State for War.

HAMILTON, Lieutenant-General Sir Bruce, K.C.B., K.C.V.O., is in command of certain Corps of Territorials. Born in 1857 ; joined Army 1877 ; served with marked distinction in the Afghan, Boer, Burmah, Ashanti, Benin and South African Campaigns, and commander the second division of the 1st Army Corps from 1904-9.

HAMILTON, General Sir Ian, G.C.B., D.S.O., is a soldier to the backbone, born in the military atmosphere of Corfu. Serving in the Afghan and the first Boer Wars he took part in the Nile Expedition of 1884, when he was awarded the Khedive star for distinguished services. Under the generalship of Sir George White he fought with conspicuous gallantry through the siege of Ladysmith, and was subsequently promoted to the rank of major-general. Selected by Lord Kitchener in 1901 as his Chief of the Staff, he shared with General Sir John French the responsibility of commanding our mobile forces.

HAUS, Vice-Admiral Anton, Commander-in-Chief of the Austrian Fleet. Appointed in 1913 to succeed Count Montecuccoli.

HELMSLEY, Major Viscount, M.P., was called from the House of Commons on the mobilization of the Yorkshire Hussars at York.

HENDERSON, Colonel (Temporary Brig.-Gen.) Sir David, C.B., D.S.O., Director of Military Aeronautics, War Office. Commander-Colonel of the Royal Flying Corps on active service, formerly Director of Military Training at the War Office. Gave up this much-desired post to devote himself to Military Aeronautics. Has in twelve months made the Royal Flying Corps, despite its small size, one of the most efficient in the world. Is himself a certificated aviator.

HENRY, Prince, of Prussia, held the appointment of Admiral of the Fleet in the British Navy. He is a brother to the Kaiser, and has filled several important posts in the German fighting service.

HOOD, Rear-Admiral Horace L.A., C.B., D.S.O., M.V.O., Naval Secretary to the First Lord of the Admiralty, was formerly in command of the Royal Naval College, Osborne. Born 1870. Joined Royal Navy in 1883. Served in the Sudan (1897) and Somaliland. His brilliant qualities won recognition in dispatches, and in 1912 he was appointed A.D.C. to the King.

HORNBY, Rear-Admiral Robert S. Phipps, C.M.G. Flagship: H.M.S. *Doris*. Born in 1866, he is one of the younger commanders of the Fleet, of whom, given the opportunity, much is expected. Though this is his first experience of active warfare, his skill as a naval strategist had already been proved during manœuvres.

HUGHES, Colonel, Minister of Militia in Canada, a post corresponding to the Secretaryship of State for War, is raising a force of 100,000 Canadians to assist the Imperial Forces.

HUGUET, Colonel, a French military attaché, who has been closely associated with the co-operation between the British and French War Offices.

JANKOVIC, General. A distinguished staff officer in command of the united Servian and Montenegrin Armies in the war against Austria.

JELLICOE, Sir John, who, as Commander-in-Chief of the Home Fleets, is in supreme command in the North Sea, is a young man of 54, as ages go in naval tradition. He has been in the Navy since 1872. He is a gunnery specialist, winning the £80 prize for gunnery when at college as lieutenant in 1883. Twice he has seen war service, first in the Egyptian War of 1882, and, secondly, in China in 1900, when he took part in the expedition to relieve the Pekin Legations. His thoroughness as an administrator has been shown as Naval Assistant to the Controller, Director of Naval Ordnance, Third Sea Lord and Second Sea Lord, which latter post he has just left. Afloat, he has been rear-admiral in the Atlantic Fleet, vice-admiral commandng that Fleet, and vice-admiral commanding the Second Division of the Home Fleet. What he does not know about the east coast of England is not worth knowing. "It would almost seem," says a writer in the *Globe*,

"as though the man to whom the chief command of the British Navy has now been entrusted had been specially saved by Providence for the accomplishment of some great task. He has been wrecked in circumstances which made his escape from drowning little short of a miracle. He was on the *Victoria* when she was rammed by the *Camperdown*, and he was severely wounded in rescuing the Legation at Pekin. He is in the flower of his age, and at the height of the great career which began by his passing out of the *Britannia* the first of his 'batch' by over a hundred marks, and by obtaining three 'firsts' in his examination for sub-lieutenant. He thinks a great deal more than he talks, and the Navy to a man believes in him." Few men have had a greater share than Sir John Jellicoe in forging the mighty weapon of which he is now in charge. With Admiral Madden, his brother-in-law and now the Chief of his Staff, he was associated with Lord Fisher on the famous Dreadnought Design Committee, and he has been a member of the Board of Admiralty since 1912. Sir John and his brother-in-law are in complete accord as to the strategy which should govern the disposition of the Fleets and the tactics to be employed in naval battle. He is a man of swift judgment and inflexible determination, who spares neither himself nor others. He was born on December 5, 1859, and is the son of a naval officer.

JOFFRE, General, the Commander-in-Chief of the French Army, has won his position by the exhibition of much the same qualities as those for which Lord Kitchener is famous. He is thorough, strong-willed to the point of obstinacy, and has a genius for organizing "What Joffre says is done," is a saying in the French Army. Born in 1852, he served at the age of 18 in the great conflict of 1870. He may be regarded as the creator of the French Army organization of to-day, and more especially of the defences of her eastern frontier, in which material changes have been made in the past five years. "Personally," says a writer in the *Daily Telegraph*, "General Joffre is a country gentleman of great simplicity of character and living, having had little leisure for amusements and hobbies throughout a strenuous life devoted to the military profession and art. He has, like so many other brilliant soldiers, a liking for whist and bridge, and is a player of more than average skill, a fact that he modestly denies." His untiring activity during the first week of the mobilization excited great admiration amongst the troops under his command. Within seven days he covered more than a thousand miles in his motor car to and fro along the prospective battle front. General Joffre was 62 years of age last January. He has been married for ten years, but is childless. He is of medium height, stout, with a massive head, fair-haired, and with a thick drooping moustache and heavy eye-brows nearly concealing his eyes.

KENSINGTON, Baron, D.S.O. Born 1873. Served in South Africa and was mentioned in dispatches. His Lordship is now with the Welsh Volunteer Force.

KITCHENER, Earl, of Khartoum, was born in 1850. After studying at Woolwich, he entered the Royal Engineers in 1871. Taking part in the Sudan Campaign for the relief of General Gordon, he attained the rank of lieutenant-colonel. He became Governor of Suakin in 1886 and Sirdar of the Egyptian Army in 1890. His public fame rests chiefly upon his work as an organizer of the victory of Omdurman, in which he completely overthrew the power of the Khalifa, and on his successful completion of the Boer War. Lord Rosebery has described him as "a great general with a dash of statesmanship." A taciturn man of few words, he has shown himself to be the type of man who succeeds in whatever he undertakes.

LEMAN, General, suddenly came before the public eye through his gallant defence of Liége. It is one thing to possess a cleverly designed fortress ; it is quite another matter to know how to defend it, even with troops of experience. There is abundant evidence that in General Leman, who is a mathematician and scientist, having attained distinction as a professor of mathematics in a Belgian military academy, Belgium has found the ideal combination of advanced science and thorough practical attainments. Add to this that General Leman is a man of fierce and untiring energy, and there is the explanation of the great soldier he has revealed himself to be. And this is his first work as a practical soldier. Indeed, the Belgian army as a whole has had no war experiences for two generations, the last occasion being the revolution of 1830. A few individual officers and men have, however, seen service in the Congo and in Mexico. General Leman is in charge of warlike operations for the first time at the age of 62. In appearance he is full-faced ; bald, but with heavy moustache and beard, square and firm in the jaw, which, however, is more than balanced by his big cranial development A man who has never spared himself, and is now in his prime.

LICHNOWSKY, Prince, the German Ambassador to Great Britain, is recognized to have strained every nerve to preserve peace to the latest possible moment.

LOUIS, Prince of Orleans, is a great-grandson of King Louis-Philippe of France. Although an officer in the Austrian Army, he has offered his services to France.

LUXEMBURG, Marie, Grand Duchess of, whose neutral and independent territory was violated by Germany on the declaration of war, the Grand Duchess herself being subjected to personal threats at the point of the revolver when she protested, was born in 1894. "She is undoubtedly the most beautiful sovereign in Europe, slight, not too tall, and very fair," says an authority. "Her hair is bright gold, her features exquisitely cut, and her complexion exceedingly delicate."

ADMDEN, Rear-Admiral Charles E., C.V.O., Chief of Staff under Admiral Jellicoe, with the High Seas Fleet in the North Sea, has held many naval offices and has in succession been rear-admiral in the First

and Third Battle Squadrons and in the Second Cruiser Squadron. He is one of the coming men of the Navy, greatly experienced in staff duties and exercised in the handling of fleets. A few months before the outbreak of the war he was selected for the position of Third Sea Lord. Born in 1862, he entered the Navy in 1875. As captain, he gained distinction when he was in command of one of the earliest flotillas of torpedo-boat destroyers in the Mediterranean. He became rear-admiral in 1911, after he had gained a high reputation as an administrator. After acting as naval assistant to Lord Fisher at the Admiralty, he became captain of H.M.S. *Dreadnought* in 1907. Admiral Madden, like Sir John Jellicoe, whose brother-in-law he is, took part in the Egyptian War of 1882.

MAITLAND, E. M., Wing-Commander, R.N., Captain (Temporary Lieut.-Col.), Essex Regiment, Commands the squadron of smaller naval airships.

MARY, Queen-Consort of His Majesty King George V. Born May 26, 1867. Her Majesty has taken the keenest possible interest in the benevolent agencies called into existence by the war, and especially in the organization of a committee to collect clothing for the wives and children of soldiers at the front.

MENSDORFF-POUILLY-DIETRICHSTEIN, Count Albert, formerly Austrian Ambassador to the United Kingdom, where he was a popular member of the Diplomatic Corps and of general society for many years. He was appointed Ambassador to the Court of St. James's in 1904.

MILES, Sir Herbert S. G., K.C.B., M.V.O., Governor and Commander-in-Chief of Gibraltar, distinguished himself in the South African War, and became Commandant of the Staff College, Camberley.

MONTECUCCUOLI, Admiral Count, is Chief Commander of the Austrian Fleet.

MOORE, Rear-Admiral Archibald G. H. W., C.V.O., C.B., the Third Sea Lord on the Board of Admiralty, hoists his flag in H.M.S. *Invincible.* He is a torpedo expert, and has much to do with the organization of our mosquito fleet. He was born in 1862. He has been continuously employed ashore or afloat since he entered the Navy in 1875. He was in the Mediterranean during the Egyptian War of 1882, and was for a time in command of the torpedo craft in the Mediterranean. He was captain of H.M.S. *Good Hope*, which took Mr. Chamberlain to South Africa. He has been Chief of Staff to the Home Fleet, and in 1910 was appointed Fourth Sea Lord.

MORLAND, Major-General T. L. N., C.B., D.S.O., is in command of the 2nd London Division, Territorial Force. He joined the King's Royal Rifles in 1884, and for some years served with the West African Frontier Force, of which he afterwards became Inspector-General.

MOSELY, Alfred, C.M.G., LL.D., was on hospital service in South Africa and is now in charge of the erection and equipment of the base hospital at South Queen's Ferry, Scotland, which was offered as a patriotic gift to the Queen.

MURRAY, Major-General Sir Archibald James, K.C.B., C.V.O., D.S.O., Chief of Staff of the British Expeditionary Force under Sir John French. Formerly in command of the Second Division, and at one time Director of Military Training. He was severely wounded in South Africa. Age 54.

NICOLAS I., King of Montenegro, was born at Niégoch on September 25, 1841, and succeeded his uncle, Prince Danilo, in August, 1860. He is Colonel-in-Chief of the 9th Regiment of Servian infantry. He married, in 1860, Milena, daughter of the Voyvode Pierre Vucotitch, and has six daughters and three sons. His second daughter is Queen of Italy.

NICOLAS II., Tsar of Russia, born May 6, 1868, at St. Petersburg, and a cousin of King George V., to whom he bears a personal resemblance. His Majesty is an Admiral of the Fleet in the British Navy.

PAGET, Lieutenant-General Sir Arthur Henry, G.C.B., served in the Ashanti War of 1873, the Soudan of 1885, the Burmah Campaign of 1887, and throughout the S.A. War, in which campaign he was numbered amongst the few who greatly enhanced their reputations.

PAINE, Captain Godfrey, C.B., M.V.O., R.N., Commandant of the Central Flying School, Upavon. Naval officer lent to War Office. Has organized the Central Flying School as an establishment which trains officers of both services and civilians appointed to the Royal Flying Corps till fit for duty with aeroplane squadrons.

PAKENHAM, Rear-Admiral W. C., C.B., M.V.O. Born 1861. A Lord Commissioner of the Admiralty, now commanding the Third Cruiser Squadron in H.M.S. *Antrim*. He knows what a modern fleet in action is like from his experience in the Russo-Japanese War, when he was on board Togo's flagship. He is the oldest of the cruiser admirals of his fleet, but a man of exceptional experience and knowledge of modern naval fighting.

PAU, General, is a French veteran of the Franco-Prussian War (1870-71) who, though possessing only one arm, is now in command of one of the French Army Corps.

PETER I., King of Servia since 1903. Succeeded to the throne after the assassination of Alexander I. Born in 1844. Grandson of George Czerney, who was the first chief of the insurrection against the Turks in the beginning of the 19th century. Married in 1888 to Princess Zorka of Montenegro.

POINCARÉ, Raymond, French President since 1913. A member of the French Academy, and thus a distinguished writer, a famous barrister, a statesman and an artist, he is representative of French genius at its best. His firm handling of the critical situation at the outbreak of the war has endeared him to his countrymen in a way that has

been equalled by no other French stateman since the days of Thiers.

PULTENEY, Major-General W. P., C.B., D.S.O., Commanding the 3rd Corps (5th and 6th Divisions) of the British Expeditionary Force in Belgium. Born 1861; joined Scots Guards, 1881. Served in Egypt and South Africa, being mentioned thrice in dispatches.

PUTNIK, General, is a distinguished Staff Officer of the United Servian and Montenegrin Armies.

REDMOND, John, M.P., Leader of the Nationalist Party in the House of Commons. On the outbreak of war his declaration that the Irish National Volunteers could be depended upon to defend the coasts of Ireland against England's enemies, and that his followers would heartily co-operate with their former political antagonists, the Ulster Volunteers, was regarded as a virtual settlement of the Home Rule controversy.

RICCI, Chevalier Luigi, is one of the few Garibaldians still living, and is now organizing a foreign legion in London to help the Imperial forces. He was educated at the Royal Military College in Italy, nearly half a century ago, when his admiration for Garibaldi induced him to raise a troop of volunteers at his own expense to help the patriot. He fought for France during the siege of Paris.

RIDSDALE, Edward A., F.G.S., Chairman of the Executive Committee of the British Red Cross Society, the Headquarters of which are now at Devonshire House, Piccadilly, W.

SALANDRA, Signor, Prime Minister of Italy, who has taken a firm stand for the neutrality of Italy, in spite of Italy being a member of the Triple Alliance.

SAMSON, Wing-Commander C. R., R.N., Commandant of the Royal Naval Flying School at Eastchurch. One of the first three naval officers to fly. Commands the land-going machines of the Royal Naval Air Service, and is one of the most notable pilots in the Navy.

SCARLETT, Captain F. R., R.N., Inspecting Captain of Air-craft, controls from Sheerness the *matériel* of the Royal Naval Air Service.

SCINDIA, Maharajah, an Indian Prince who has been to the fore in proffering help to the Empire for the war. He also gave £10,000 to the Prince of Wales' National Relief Fund.

SCLATER, Lieutenant-General Sir H. C., K.C.B., Adjutant-General to the Forces, and second military member of the Army Council. He was born in 1855 and has seen active service in nearly every " little war " since 1884.

SINGER, Captain Morgan, A.D.C., R.N., is Director of Naval Ordnance and Torpedoes, an important and responsible post calling for marked organizing ability.

SMITH, Rt. Hon. F. E., one of the best-known and ablest barristers of the day. He is an officer of the Oxfordshire Hussars. On the

outbreak of war he was appointed as Chief of the Government News Bureau, which furnishes official war news to the Press.

SMITH-DORRIEN, General Sir Horace Lockwood, D.S.O., was born in 1858. During the forty years of his active career he has been decorated for distinguished services in the field on many occasions. During the Zulu War of 1879 he was first mentioned in dispatches, and every succeeding campaign which has since been fought in Egypt and South Africa has found his name among those who have distinguished themselves. He has been chief of the Southern Command since 1912, and is now in command of the 2nd Army Corps.

STAMFORDHAM, Baron, Private Secretary to King George V. He was in the Royal Artillery and was mentioned in dispatches in the Zulu War (1878-79).

SUETER, Captain Murray F., C.B., R.N., Director of the Air Department at the Admiralty, is, next to Mr. Churchill, responsible for the fact that the Royal Naval Air Service is better organized and better equipped than any other Naval Air Service in the world. He was concerned with the experimental dirigible at Barrow-in-Furness before taking up his position at the Air Department.

SUKHOMLINOFF, General, a Russian soldier who has had charge of the reorganization and re-equipment of the Tsar's armies. He is known in military circles as "the Russian Kitchener."

SUTHERLAND, Duke of, born 1888, has been in the Life Guards and owns 1,350,000 acres. His Grace is the organizer of the registration and equipment of country houses as hospitals and convalescent homes for wounded soldiers and sailors, which has been amalgamated with the Incorporated Soldiers and Sailors' Help Society in order to avoid overlapping. He has given the use of Dunrobin Castle as a central surgical base for the North Sea Fleet. The Duchess of Sutherland has organized an Anglo-French Ambulance Service for the War.

TENNANT, Rt. Hon. H. J., M.P., Parliamentary Under-Secretary of State for War, and Civil Member of the Army Council.

THURSBY, Rear-Admiral Cecil F., C.M.G. Flagship: H.M.S. *Queen*, Born 1861; entered Navy 1874. He served at Suakin (1884-5) and holds the Royal Humane Society's certificate for saving life.

THYSSEN, Herr August, is a German ironmaster who bought a port in Holland, near Rotterdam. He is known as Germany's most famous self-made man. He controls the destinies of 50,000 workpeople in Westphalia. By his efforts the cost of production of steel armour plate for the German navy has been considerably reduced.

TOTTENHAM, Rear-Admiral H. L., C.B. Flagship: H.M.S. *Albion*, He was born in 1860, was educated at the Royal Naval Academy, and entered the Royal Navy in 1873. He saw service with the naval brigade at the Battle of Tel-el-Kebir and served as naval A.D.C. to King Edward VII.

TUDOR, Rear-Admiral F. C. T., C.B., a Sea Lord of the Admiralty, was formerly Director of Naval Ordnance and Torpedoes.

TULLIBARDINE, John, Marquess of, is Unionist M.P. for West Perthshire. As captain in the Royal Horse Guards, he was staff officer in the Nile Expedition of 1898. He is now raising a new regiment of Scottish Horse.

USBORNE, N. F., Wing-Commander, R.N., Commands Kingsnorth Naval Air Station and Naval Airship No. 3 ("Astra Torres"). One of the first naval officers to engage in airship work. Airships "No. 3" and "No. 4" effectively patrolled the Channel during the crossing of the Expeditionary Force.

VENDÔME, Duc de (Prince Emmanuel of Orleans), a representative of the Bourbon Royal Family, is helping his country, in spite of the fact that French law does not allow him to serve in her army. His wife, a sister of the King of the Belgians, is organizing aid for wounded Belgian soldiers.

VICTOR-EMMANUEL III., third constitutional King of Italy. Born 1869. Married 1896 to Princess Hélène of Montenegro. Became King in 1900.

VIVIANI, Mons., is the Prime Minister of France, under whom all political parties in France have become united. He was Minister of Public Instruction in the Cabinet of Senator Gaston Doumergue, whom he succeeded early in the summer of 1914.

VON DONOP, Colonel Sir S. B., K.C.B., Master-General of the Ordnance and Fourth Military Member of the Army Council, is a Royal Engineer and a great authority on railways and the transport of troops.

VON INGEWOHL, Vice-Admiral, Commander-in-Chief of the German High Seas Fleet.

VON KLAUSOVITCH, a German military theorist who founded the modern school of Prussian militarism.

VON MOLTKE, Count, Chief of the German Staff. Nephew of the famous Von Moltke who was the associate of Bismark and head of the Prussian and German Armies in the Danish, Austrian and Franco-Prussian Wars. He was formerly a Lieutenant-General in charge of the first division and General A.D.C. to the Emperor William II. He is the author of an important work on strategy and tactics.

VON TIRPITZ, Grand Admiral, is the Naval Secretary of State and Minister of Marine of the German Empire. Little is known of his personality, except that he is a most resolute man whose life-work has been to build up a powerful and efficient navy and naval organization for his country.

WALES, Edward, Prince of, who was with difficulty dissuaded from going into active service with the Navy, has found consolation in

joining the 1st Grenadier Guards. In addition to his military duties, he is occupying himself with administration work at home. His national appeal for funds for the relief of future distress is known to all. He is also actively interesting himself in the Committee that has been constituted by the Government to advise on measures necessary to deal with any distress that may arise. He was born on June 23, 1894.

WALKER, Lieutenant-Colonel Herbert A. (born 1869), is Acting-Chairman of the Executive Committee which took over the railways of the United Kingdom on the declaration of war. He has been General Manager of the L. & S.W.R. since 1912. His military rank is that of the Railway and Engineer Staff Corps.

WARRENDER, Vice-Admiral Sir George, K.C.B., Commander of the Second Battle Squadron in the North Sea, has seen service in the Zulu War of 1879 and was present at the battle of Ginghilovo, where he won distinction. He became a rear-admiral in 1908, commanded the Second Cruiser Squadron from 1910 to 1912, and in 1913 was promoted to his present rank. During the recent visit of the British Fleet to Kiel both he and his men were warmly welcomed by the German Fleet.

WEBBER, Captain, Organizer of the Foreign Legion, composed of friendly aliens in London and district, for the defence of the United Kingdom. Headquarters: Soho Square, W.

WEMYSS, Rear-Admiral Roslyn E., C.M.G., M.V.O. Flagship: H.M.S. *Charybdis*. Born 1864; entered Navy 1879. Admiral of the Second Battle Squadron since 1912.

WHITNEY, Sir James Pliny (born 1843), Premier of Ontario and President of the Council (1905), has been one of the leaders in the movement to dispatch volunteers from Canada to the seat of war. He is a lieutenant-colonel in the Canadian Reserve Forces.

WILLIAM II., German Emperor and King of Prussia. Third German Emperor, grandson of William I., son of Frederick III. and Victoria, Princess Royal of England. Born 1859. Became Emperor June 15, 1888. Educated at University of Bonn. Married in 1881. Has 6 sons and 1 daughter.

WINGATE, Lieutenant-General Sir Francis Reginald, first came prominently into public notice as successor to Lord Kitchener and Sirdar of the Egyptian Army. Born in 1861, he served in India and Aden from 1881 to 1883. During the Nile Expedition of 1884 he acted as Military Secretary to Sir Evelyn Wood. He has been decorated for distinguished services on more than a dozen occasions.

WOODCOCK, F. N., Squadron Commander, R.N., Commands Farnborough Naval Air Station and Naval Airship No. 4 ("Parseval") which, together with No. 3, patrolled the Channel during the transport of the Expeditionary Force.

CHAPTER III

Modern Military Strategy

STRATEGY is the art of planning out a war campaign in advance and adjusting these plans to cope with the disposition of the opposing forces, the object at all times being to place the enemy at a disadvantage whether in point of numbers or in the superiority of the defending or attacking position. Successful strategy in warfare may be brought about in many ways. An army may be forced to give battle in a position unfavourable to the full use of its forces, or it may be caused to divide these forces, or to unite them at a great disadvantage; or, again, it may be compelled to take action when ill-prepared, or to submit to great delay when every hour is valuable.

Under modern conditions the former distinction made between strategy and tactics has almost disappeared. The present day line of battle is so extended that a tactical manœuvre in one part of the field may really be undertaken in order that the strategical disposition of troops in another part may be accomplished. The distinction between the preliminary strategy for position and the tactical manœuvre for advantage on the fighting line hardly exists.

In drawing up any plan of campaign a commander must first consider the whole matter from his opponent's point of view, and the subsequent operations, modified to suit the circumstances of the campaign, constitute the strategy.

The first object of every commander when ready to fight is to seek to bring his adversary to battle. His aim will be to place his army in such a position

that the chances of victory owing to superiority of numbers, position or morale will be greatly in his favour. Successful strategy therefore depends upon a correct opinion as to the enemy's plan of campaign while masking as far as possible the probable nature of one's own attack or defence. For such a purpose a thorough knowledge of the topography of the scene of war is of first importance. The possession of such knowledge is vital to any scheme of campaign.

In addition to the strategical use of the area of combat, strategy also includes all plans aimed at crippling the resources of the enemy, particularly as regards its trade and commerce.

In arranging the mode of invasion, the starting points, the lines of attack and the objective, strategy in its more complete and military sense is paramount. The main attack may be masked and the enemy misled, or by special combinations strategical points may be actually created. In offensive strategy, when the enemy has taken up a position which in all probability he has ample time to strengthen, it is essential to prolong his uncertainty as to whence will spring the chief brunt of the attack. In defensive strategy the object, when the real plan has been divined, consists in allowing the attack either to waste its energy fruitlessly or to give battle under conditions which nullify any disparity between the forces of attack and defence. The Fabian policy against Hannibal is a classic example of defensive strategy, in which the plans of the attack were allowed to be carried out only to lead to disaster.

How Modern Strategy Has Developed in the Last Century

Modern strategy may be said to date from the 17th century wars in the Netherlands, where for the first time gunpowder and siege artillery were used on a large scale. The strategy employed under these new conditions developed in accordance with improvements in weapons and fortifications. Like a growing organism armies became more complex, and

with greater complexity came the necessity for better co-ordination. The age-long duel between siege and fortification continued with varying fortune, while the increase in the size of armies and the resulting problems of supply and communications made military operations more dependent on roads. Mobility, combined with a highly developed intelligence department, became the first essential for a commander employing modern implements of war and engaging an enemy similarly equipped. The old custom of marching *en masse* to a frontal attack no longer sufficed. Armies separated into divisions, divisions sub-divided into corps. The value of flanking and turning movements were discovered by the more astute leaders. The science of war thus slowly evolved, a science to the study of which some of the best intellects in Europe were applied. And suddenly all that had been learned and tested in operations on the field was thrown into the melting pot of the French Revolution.

The revolutionary armies of France brought new problems which required new solutions. Out of the necessity for guarding many avenues of approach the idea of the "division," a mobile force of all arms, was carried to a higher point of development. The wide dispersion of their forces rendered necessary a brain and nervous system—the general staff. And, most important of all, the exigencies of the revolutionary wars forged the greatest weapon which Napoleon inherited—the converging movement.

The genius of the greatest commander the world has known perfected and carried to its highest point the art of strategy. With Napoleon strategy became more complex and at the same time more exact. His training as an artillery officer naturally led him to apply his first efforts to that arm. Here he bettered the instruction of his teachers, who had implanted in his mind the great principle of *concentration of the destructive elements on the decisive point.* The increased mobility of artillery made it possible for Napoleon to bring up masses of guns and to use them with decisive effect at the right moment. All his

great campaigns were won in this way. His downfall at Waterloo was in part due to atmospheric conditions beyond his control, and also because of the introduction by the British of a new form of strategy of which he had had no experience. One of Napoleon's great points of strategy was to lead his opponents to attempt combination of forces and to anticipate them in time, defeating each in succession. The timely arrival of Blücher on the field of Waterloo disorganized his calculations, and was the primary cause of his final downfall.

The Difference Between German and French Strategy—Napoleon and Von Moltke

Napoleon not only carried the art of strategy far beyond the point it had reached in his day, but subsequent military campaigns have shown that, in a sense, his strategy died with him. This apparent paradox can be partially explained by the fact that Napoleon never appreciated the enormous intellectual gulf that separated him from his generals. He did not deign to explain to them what seemed perfectly plain to his clearer vision. The defeat of the French in 1870 must be attributed to their neglect of the Napoleonic tradition. One of the most important results of that war has been a revival of this tradition in the French Army of to-day. In the archives of the French War Office the documents, the General Orders, and the correspondence of Napoleon have been subjected to the most searching investigation by an ardent group of French officers of the *École de Guerre.* These officers have been training one another for posts in the École whence the future commanders of the French Army are drawn. From this study of documents a connected system was gradually evolved and this system is to-day the basis of the organization of the French Army.

German strategy, on the other hand, derives from Von Moltke and is a modern development of earlier Prussian practice. It relies mainly upon careful organization, upon exact timing of movements and

concentration of masses upon decisive points. In so far as it is mechanical it is liable to dislocation under severe strain. The German soldier is well drilled but is lacking in initiative; he is steady rather than spirited. The French Army, following the Napoleonic tradition, excels in mobility, while the French soldier is distinguished by the qualities of initiative and ardour.

For actual fighting purposes, and during war, the necessities of the individual soldier must be provided for in such a way as not to hamper its main objective. This objective is to oppose as wide and strong a front as possible to the enemy when the striking moment arrives. A body of even twenty-five thousand men occupies a considerable space and needs such quantities of supplies and food that few places are capable of affording these in the course of its movements. Hence in addition to the usual means of transport, such as railway lines, or a mercantile fleet, which are ordinarily used to carry rapidly a whole army to any fixed destination, every mobile force requires what is known as "transport" for a wholly different purpose. The food and ammunition must first be stored in central depots, but it can only be distributed to the battalions in the field by means of their transport equipment.

Supreme Importance of Base, Lines of Communication and Transport.

From the moment of the declaration of war a modern army enters upon a campaign with the whole of its transport as definite a part of its equipment as its infantry, its cavalry or its artillery. Thus this problem of transport must enormously affect modern strategy. The source from which an army is supplied is usually spoken of as its "base." The direction along which these supplies travel is its "lines of communication." Obviously, the farther an army advances from its base the longer becomes its lines of communication.

If, then, by utilizing a large portion, or the whole of its own force, against a smaller opposing force a general can break up and interfere with its lines of

communication, the advantage gained depends upon the fact that he has broken up its organic unity as an effective fighting force. Even if, as may easily happen, he has lost more men than the enemy during the effort, this may have little bearing on the final result. The strength of armies cannot be measured by counting the number of combatants on either side. It depends upon the organized force that a general is able to launch at the proper moment against the enemy.

During the earlier battles of the Franco-Prussian war, for instance, the Germans lost many more men than the French, but in every instance they were able to break up the organic efficiency of the enemy by throwing its transport into confusion and threatening its lines of communication. At Worth, the second important engagement of the campaign, the Germans destroyed the organic efficiency of at least 40,000 men, and these men never regained their effectiveness as a complete fighting unit throughout the campaign. The German forces, on the other hand, though they lost many more men than the French, actually increased their efficiency through the increased morale of the troops owing to the victories won. In short, if a commander can in any way interfere with the source from which an enemy is obtaining its supplies, he can diminish its fighting powers as effectually as if it were broken up in the shock of battle. A body of men who are starving are as little amenable to discipline as a body of men who are routed and dispersed.

For facility of supply and facility of movement, so long as an army is out of reach of an enemy, a considerable dispersion is advisable. But it is vitally necessary for effective strategy that an army should be able to collect all its parts before there is any possibility of an enemy attacking it. Otherwise it would be in a position of exposing some of its fragments to the danger of being separately attacked by superior forces and destroyed before they could be supported. Hence, to concentrate a striking force before it can be attacked by the enemy's concentrated strength is the primary object of strategy.

The process by which an army is brought into the theatre of operations is called the strategical concentration. This is effected by sea, by rail, by water or by road, or by a combination of these means.

The fighting troops of an army are composed of cavalry, artillery, engineers, infantry, mounted infantry, and of cyclists. These arms are in certain proportions, which have been fixed as the result of experience. Each has its special characteristics and functions, and is dependent on the assistance of the others. The full power of an army can be exerted only when all its parts act in close combination, and this is not possible unless the members of each arm understand the characteristics of the other arms.

Infantry depends on artillery to enable it to obtain superiority of fire and to close with the enemy. Without mounted troops the other arms are hampered by ignorance of the enemy's movements, cannot move in security, and are unable to reap effectually the fruits of victory, while mounted troops are at a great disadvantage, unless accompanied by horse artillery, which assists them to combine shock action with fire. Artillery and engineers are only effective in conjunction with the other arms, and all their efforts must be directed towards assisting the latter to secure decisive success. The tactical advance guard protects the main body when the march begins. It encounters the enemy's advance troops and endeavours to drive them back, chiefly in order to discover the strength and disposition of the enemy's main body. Reliable information of this kind is seldom obtained without fighting.

Communication in the Field—Signalling, Wireless and Telephone

The maintenance of communications between the various parts of an army on the field is of the first importance, in order to secure absolute co-operation. When communications are made they are either orders, reports, or messages. They may be conveyed by the army postal service, by mounted messenger,

by telegraph, field telephone, flag, heliograph or flash signals, or by balloon signals. Messages are also sent by aeroplane.

The International Code of Signals, on the initiation of the British Board of Trade in 1857, and amended in 1905, is in general use for shipping throughout the world, including the Royal Navy; all navies, however, have their own confidential code. Owing to the difficulty of distinguishing colour at a distance, a special set of distance signals is used, consisting of two square flags, two pennants and two balls, but in the Navy the semaphore on the bridge is largely relied on because of its superior rapidity over flag signalling. At night flash signals by means of lamps which employ the Morse code are used in clear weather, being replaced by the siren, fog-horns or guns when fog arises. All methods of signalling bid fair soon to become if not obsolete at any rate of minor importance in comparison with the convenience and superiority of conveying messages by means of wireless telegraphy.

Big Artillery Guns—Howitzers, Mortars, Machine Guns

Field tactics have been worked out in detail for all branches of the Service. Those relating to the use of light artillery are perhaps more interesting and important than others at the present juncture. Here success depends mainly on the right choice of formations and the full utilization of the ground. The chief consideration to be kept in view is that the highest efficacy should be secured for one's own weapons, while that of the enemy's guns is diminished.

The principles for the employment of artillery are the same in field and fortress warfare, but in the latter more thorough preparatory measures and a greater expenditure of time are necessary.

The number of different objects, technically known as "targets," to be dealt with renders necessary the use of guns of varied nature and fire effect. Howitzers and mortars are employed generally against targets behind or under cover, and guns with flat trajectories

against targets in the open or only partially under cover.

Heavy artillery can seldom avoid firing over the heads of its own troops. When the foremost infantry lines are so near to one another that its own troops would be endangered, the fire is turned on to other discernible targets behind the enemy's skirmishers, upon the artillery, or, when no targets can be made out, upon the supposed position of the reserves.

The different methods of fire in use have their special functions to serve. As to range of fire the following definitions are given:

Terms applied to ranges.	Rifle.	Field Artillery.	Heavy Batteries.
	Yards.	Yards.	Yards.
Distant	2,800 to 2,000	6,500 to 5,000	10,000 to 6,500
Long	2,000 to 1,400	5,000 to 4,000	6,500 to 5,000
Effective	1,400 to 600	4,000 to 2,500	5,000 to 2,500
Close	600 and under	2,500 and under	2,500 and under

The width of the area of ground struck by bullets of an effective shrapnel (a shell containing bullets) is about 25 yards. The limit of the forward spread of the bullets of shrapnel burst at effective range is about 200 yards. The radius of the explosion of a high explosive shell is about 25 yards.

The machine gun possesses the power of delivering a volume of concentrated rifle fire which can be rapidly directed against any desired object. Rapid fire cannot be long sustained owing to the expenditure of ammunition involved. The movements and fire action of these weapons are regulated so as to enable them to gain their effect by means of short bursts of rapid and accurate fire whenever a favourable opportunity arises. Surprise is an important factor in the employment of machine guns, which are usually concealed.

Military Training and Discipline

Discipline is the very life-blood of an army, and it is on the field of battle that it shows its potency. To interfere with this spirit, or to introduce the

least malignant influence into it, is to blood-poison the army, for discipline determines the power and influence of a commander over his men in the presence of the enemy and under the stress of battle. But no army can hope, in modern warfare, when in the presence of an enemy armed with the weapons of to-day, to carry out any system of manœuvres with the discipline inculcated on the drill ground.

The capacity to act together under the orders of one man is the primary object of all drill and discipline and can never be dispensed with in warfare. The instinctive obedience of a rank of soldiers to turn "Right about," when that order sends them back to the ground where shells are bursting and bullets are raining, has been proved a power in fighting too great ever to be dispensed with. In proportion as men understand war and how victories are won so do they value the effect of discipline, and no officer would be willing at a given moment to diminish even actual loss of life if that diminution were secured by any sacrifice of the discipline and its attendant fighting power.

Military Medical Science and Army Sanitation

History conclusively proves that more soldiers die from disease and the effect of exposure than from wounds received in battle. Therefore the health of an army, as a factor in its fighting efficiency, is no less an important matter for consideration than the strategic plan of campaign or the tactics in the field.

The sanitary organization of an army is based on the principle that the commander of every unit and formation is responsible for the sanitary condition of the quarters or localities occupied by his command, and for taking all measures necessary for the preservation of the health of those under him. He is also responsible for seeing that every officer and soldier observes all sanitary orders, and for the good order and cleanliness of that portion of a quarter or locality under his charge, irrespective of the period for which the latter may be occupied.

One of the important duties of the medical officer of the Royal Army Medical Corps is to go forward with the staff officer and help in the selection of a halting or camping site, especially in regard to its water supply, both for men and animals. A medical officer is also detailed for duty at the halt or camp.

Specially trained men of the R.A.M.C. are detailed to see that the men do not drink impure water and that their water bottles and tanks are periodically cleaned. A white flag is used to denote a supply of drinking water; a blue flag indicates a watering place for animals (which when on a stream, is below the drinking water point); a red for washing or bathing places.

In connection with the R.A.M.C. on the field are sanitary officers and squads whose duties are connected with the provision of pure water, the disinfection of quarters, and the disposal of refuse. Other medical work is that of guarding against infectious diseases.

The duties of the regimental medical establishments in action are:

i. To afford first aid to the wounded.
ii. To carry cases not able to walk to the nearest and most suitable cover.
iii. To throw up some sort of cover to protect serious cases that cannot be moved.
iv. To assist the medical units after an action, if required and available.

The first field dressing applied as a protection against dirt and to stop hæmorrhage, with the addition of some support to a broken limb, before removal of the patient, is all that is needed on the field itself. After this first aid a wounded man is usually left where he lies, under as good cover as possible, unless the nature of the ground, a pause in the fighting, or the approach of darkness allows systematic collection and removal.

At the general base hospitals the most modern scientific medical equipment is installed, including X-ray apparatus, and other implements of both antiseptic and asceptic surgery.

CHAPTER IV

Naval Strategy and the Uses of Air-Craft and Submarines

WITH regard to naval strategy and tactics, very little can be said from a point of view applicable to modern conditions. The relative efficacy of the various types of warships has yet to be proved in a stern encounter. The general supposition, however, that the heaviest armaments will count decisively appears to be well based, in view of the fact that in recent naval history gun strength has proved its general superiority. One reason for this lies in the fact that it requires no more skill to operate a big gun than a small one; and the big projectile does an infinite amount of damage when it hits the mark. Because of the value attached to guns, a small fleet of any type of vessel is reluctant to take its chance against a larger fleet of similar constitution.

At the same time, the mobility of smaller vessels carrying light armaments has great importance, while it also appears that the mosquito fleet of small, adequately armed and high-speed boats has a most important place in naval warfare. It is established, too, that fast cruisers adequately supplied with fuel are more than enough to protect the ocean-ways of commerce.

The general principles of naval strategy and tactics are almost similar to those employed in military operations. The leading aim in both cases is so to manœuvre that the enemy's force is compelled to confine its operations within a limited area. The object of a fleet is so to contain the enemy that its ships are restrained from crossing the seas to inflict damage on friendly ports or shipping. To accomplish this object it may be neces-

sary to offer battle, but it is not inevitable in naval conflict that a single shot be fired. It suffices to render the hostile fleet powerless. If actual fighting occurs the commander of the larger fleet can afford to take large risks. For instance, if in a fierce naval engagement the British and German fleets lost ship for ship, then at every exchange the British Navy would become relatively stronger than the German.

Formation of Fleet in Battle Array

A fleet advancing towards the foe adopts a formation covering a very extensive front, usually in a circular line which may extend to hundreds of miles. The advance guard consists of submarines and torpedo boats, with seaplanes and airships whose combined work it is to gather information as to the disposition of the enemy and to hold in check a sudden raid. This so-called " mosquito fleet " keeps closely in touch by means of wireless communication with the commander-in-chief, and it is supported by a ring of destroyers under the direction of a few of the fastest cruisers. Upon this line of vessel devolves the task of meeting mosquito fleets of the enemy. Such boats may be manœuvred relatively close together, but on account of their mobility their daily work may cover a very wide area.

Beyond the destroyers are the cruisers, battle cruisers, and dreadnoughts. Although a cruiser is not, in regard to its gun equipment, a match for a battleship, yet the great speed of cruisers enable them to engage the attention of the heaviest battleships pending the arrival of dreadnoughts into the fighting line. It is intended, however, in modern conditions that dreadnoughts would encounter dreadnoughts either for attack or defence.

With regard to the supply of food and fuel to a fleet, elaborate precautions are taken to secure sufficiency. A sea-going ship is usually commissioned with a two years' supply of non-perishable stores, but coal capacity is a varied factor. Each type of ship has its own operating radius, but such radius is always related to

the availability of British coal stations in all the seas of the world. In this connection it is interesting to recall that when the German fleet under Prince Henry of Prussia made a tour of the Far East the ships were allowed by courtesy to replenish their fuel at British coaling stations.

Whether the torpedo boat and the submarine will demonstrate their value in an engagement has yet to be proved. Recent naval developments seem to say that the submarine meets its match in the hydroplane because it can no longer approach its object unobserved. As to floating mines, these seem to be at least as dangerous to those who lay them as to those they are designed to damage.

The first reliable practical attempt at submarine navigation dates back to the 17th century, but it was not until the year 1897 that they began to form an integral arm of a naval flotilla. The first boat to be built which really proved serviceable was the Gustave Zede, which proved so successful in the French manœuvres that others quickly followed. The submarine boat is found in all navies now and has become quite an efficient craft; displacements of nearly a thousand tons are quite common, and speeds as well as radius of action are being steadily improved. The Diesel engine has been largely responsible for this. In manœuvres the craft have answered every expectation, but their value in aggressive warfare has yet to be proved.

The Use of Air-Craft in Warfare

The use of air-craft in warfare is being tested for the first time since the development of these inventions. Now regarded as a necessary adjunct to the military and naval service, dirigible balloons or airships, aeroplanes, and seaplanes are intended to have two purposes: to gather information and to drop explosives.

It has been pointed out by our most experienced generals that the air service supplements, but does not replace, any other method of obtaining informa-

tion. As a general rule, scouting air-craft working with an army in the field operate from a landing ground close to the general headquarters of the army, but in small numbers they may be attached to army corps or divisional headquarters as required. With a fleet they operate from ships or from air stations on the coast, and communicate by wireless with the admiral.

Strategic Use.—In the early stages of a war, military air-craft (air-craft includes airships and aeroplanes) are more particularly used in conjunction with the screen of cavalry which is thrown out in front of the army to mask the movements of the main army. Their duty, then, is both to obtain information as to the movements of hostile troops, and to drive off hostile air-craft similarly endeavouring to obtain information. For strategic scouting the fastest air-craft are used, and their duty is merely to discover whether there are troops at certain points, irrespective of what troops there may be. This information being quickly and certainly obtained, enables the defending army to concentrate in the right quarter, and to avoid being surprised, *e.g.*, the concentration of Germany at Aix-la-Chapelle was known and forestalled at Liége.

Tactical Use.—When the armies are in actual contact, slower air-craft, which as a rule afford a better view to the observer, are used to find out exactly what hostile troops are doing in the immediate neighbourhood of the fighting line. Briefly, their duties are, in strategy to find out where troops are, and in tactics to find out what they are and what they are doing.

Observation.—In Great Britain it is found that observation of troops is difficult at any height above 4,000 feet, but in the clear air of the Continent as much can be seen at 8,000 feet. Owing to the steadiness of an aeroplane as compared, say with a motor car, it is possible to use field glasses with comfort. A certain amount of photography from aeroplanes is also done, and photographs so obtained are useful as a check on the observers' notes, but as a rule more dependence

is placed on the observers' intelligence in reading and understanding the movements of troops.

Pilot and Passengers.—The very fast strategic scouts are generally flown by one officer-pilot, who has to make his own observations, but in tactical work officers specially trained as observers, though not necessarily pilots themselves, are carried as passengers. On occasion, officers of the Staff are taken up in order that they may grasp the whole situation at once, but generally the observers are of junior rank.

Communication. — Communication between air scouts and the Staff is attained by the process of landing and verbal report, in explanation of notes made in the air, but frequently written messages are dropped in the neighbourhood of the Staff in specially prepared bags with streamers attached to assist in finding them on the ground. A few military aeroplanes are fitted with wireless, but it is not the general rule, as the military machines are lower powered, smaller and lighter than the naval machines.

Armament.—A few aeroplanes belonging to most powers are fitted with machine guns firing rifle ammunition from the bow of the aeroplane, but air-craft armament as a rule consists simply of a rifle or revolver carried by the pilot or observer. More bomb dropping is being done than was at first expected. The bombs used are either ordinary hand grenades with a time fuse, or special bombs which are non-explosive until certain mechanism in their interior has been set in motion by an air propeller driven by the passage of the bomb through the air.

Balloons and Kites.—War balloons (captive) are hardly used at all nowadays, nor are kites. Experienced flying officers say that both captive balloons and kites are very much more uncomfortable and dangerous than aeroplanes.

Methods of Attacking Air-Craft.—Hostile air-craft may be attacked by either rifle or shrapnel fire from the ground, or by bombs or small arm fire, including machine guns, from other air-craft. The fastest scouting aeroplanes have a maximum speed of between 90

and 100 M.P.H., and the slowest which are likely to be used in war have a speed of something over 50 M.P.H. Most of them have a fuel capacity for four hours' flying, and a corresponding range of operations of from 200 to 400 miles.

Airships.—Military airships, otherwise known as dirigibles, are of little use except for night work. Even the fastest are so much slower than medium speed aeroplanes that they are easily overtaken, and though they can actually ascend more quickly by jettisoning ballast, their limit of ascension is far less than that of an aeroplane, and consequently in daylight they are always at the mercy of any moderately good aeroplane and pilot, so much so that the ramming of an airship by an aeroplane is not considered necessary by anyone who understands the subject. The late Colonel Cody devised a plan of attacking balloons from aeroplanes by suspending explosives from above.

Naval Air-Craft.—Naval aeroplanes are also composed of monoplanes and biplanes, but by far the greater number are biplanes. Generally, all are classed as "seaplanes." In the naval machines floats take the place of the wheels in the landing carriages. Nearly all seaplanes have two floats placed side by side and some distance apart. There are, however, a certain number of biplanes of the type known as "flying boats," in which the pilot and passenger, and in some cases the engine, are contained in a boat similar in design to a racing motor boat, the wings being fitted above it. In the smaller sizes it is found, however, that these flying boats are not suited for use in rough seas. British naval seaplanes have reached a higher stage of development than those of any other nation, and are capable of getting off and alighting on waves of between six and eight feet in height, and the fastest can reach a speed of between 80 and 90 miles an hour.

CHAPTER V

Modern Military Equipment

The Soldier's Uniform

EVERY detail of the soldier's personal equipment is taken care of in the Army Regulations, all the way from the forage cap badge of the Army Ordnance Corps, which if lost costs the man $\frac{3}{4}$d., to the aiguillette of a bandmaster in the Household Cavalry, which is priced at £3 11s. 6d. As some indication of the cost of military equipment we select the following items :—

		s.	d.
Ankle boots ..	pair	12	3
Service Dress Cap ..		1	6
Leather Gloves ..		2	6
Drab Putties ..	pair	1	10
Highland Shoes ..	,,	11	0
Sleeping Suit		5	6
Kharki Drill Trousers ..		3	0
Shoeing-smith's Jacket ..		29	4
Royal Horse Guards' Pantaloons		24	0
Life Guards' Tweed Trousers		26	6
Cavalry Non-com's Tunic		62	6
Artilleryman's Flannel Shirt		7	6
Royal Engineer's Jersey		3	2
Royal Flying Corps Great Coat		23	3
Life Guards' Cape ..		16	0
Foot ,, ,, ..		11	3

	s.	d.
Aviator's Leather Trousers	38	2
Motor Driver's Leather Coat	49	10
Kit necessaries, rifleman	29	5
,, ,, line cavalry	33	7
,, ,, Sierra Leone Artillery	5	9
Infantry Staff-Sergeant's Trousers	15	6
Do. other ranks ..	8	9
Infantry Tunic from 15/6 to	48	0
White Gaiters for Kilted Regiments	3	0
Kilt .. from 23/9 to	26	6
Sergeant's Plaid ..	4	10
Highland Warrant Officers Trews	12	9
Do. Made from time-expired Kilts ..	6	$4\frac{1}{2}$

The British Rifle

The Lee-Enfield, the rifle with which the British troops are armed used to have a calibre of ·303. But within the last few years the design has been changed with the object of adopting a bullet of a slightly

smaller calibre. In the new rifle this will be ·276. An advantage in velocity is expected from this change as the bullet is a lighter one. The chamber of the new rifle being larger and the breech mechanism stronger, the explosive to be used possesses very high power, and the velocity is 3,000 feet per second, as against 2,450 of the rifle and ammunition hitherto employed. This gives Great Britain an advantage of 100 feet per second over the nearest rival, and with these alterations the bullet never travels higher than the height of a man.

British Artillery

The term artillery is applied in modern times to all firearms discharged from carriages, etc., as distinguished from small arms. Artillery is divided into Horse, Field, Mountain and Garrison. Naval guns are also included in the term. Garrison artillery is very heavy and is used in forts. The largest guns in use have had a calibre of 16 inches, but 12-inch guns are more usual and serviceable. The 4·7 inch gun is a naval weapon which can be mounted on a gun carriage and used on land.

A battery of field artillery comprises three constituents, namely: (1) Material—guns, carriages, ammunition, and stores. (2) Personnel—officers, non-commissioned officers, gunners, drivers and artificers. (3) Transport—horses and other animals, motor and other means of transport.

The usual number of guns in a battery is six. Formerly "mixed" batteries of guns and howitzers were in use. The vehicles of a battery include ammunition wagons, stores and provision wagons and forage wagons.

The battery is generally commanded by a major, with a captain as second in command. The battery is divided into sections of two guns each, each under a subaltern officer who is entirely responsible for everything in his section. These sections are again sub-divided into sub-sections, each consisting of one gun, one wagon, men and stores.

Horse artillery differs from field artillery in that the whole detachment is mounted, leaving guns and wagon freed from the load of men. With mountain artillery the whole of the equipment is carried on the back of mules. A horse-battery throws a 14½-lb. shell and a field battery an 18-lb. shell. As a consequence of the greater effectiveness of the latter in the South African War the number of field artillery batteries has been increased with a corresponding diminution in the horse artillery.

Quick-Firing and High-Power Projectiles

The field gun is the typical weapon of the Royal Field Artillery, etc. It is a quick-firer, with a charge of 15 lb. of powder, and has an effective shrapnel range of 6,500 yards; and a further range of 10,000 yards. Machine guns are weapons which are distinct on the one side by artillery and from the other from small arms. They generally fire the same kind of cartridge as those used in rifles. The Gatling gun from America was one of the first instruments for firing bullets automatically. A mitrailleuse gun consists of 25 barrels bound together, firing more than 100 rounds per minute. The Nordenfeldt was the first successful gun of this class.

The Maxim gun invented by Sir Hiram Maxim is the one more generally used to-day. It fires 250 rounds per minute and can distribute annihilating fire over a space of 25 yards at a distance of 1,000 yards, the lateral interval between the bullets being not greater than 18 inches. It has a greater efficiency when firing at an angle, the bullets covering a wider range.

A howitzer is a special kind of artillery used in sieges; a small light gun which fires an explosive shell at a small speed but at a steep angle of descent. With such a gun a trench can be covered at short range.

A peculiar kind of projectile capable of blowing up a warship is called a torpedo. It is fired from a tube in the bows of a torpedo-boat, and is capable of propelling itself towards the object at which it is aimed. Some torpedoes are controlled by wireless telegraphy.

Torpedo nets are nets placed around a warship on overhanging booms to arrest a torpedo before it strikes the hull. A torpedo-boat-destroyer is a very fast craft designed to overtake and destroy torpedo boats.

Explosives Used in Warfare

Explosives used in warfare are known either as propellants, or detonators, the chief difference being in the time taken in the explosion.

In the case of gunpowders or propellants the explosion takes an appreciable interval of time and can be controlled in such a manner that the force is brought to bear on a projectile. With detonators the explosion takes place so suddenly that its force cannot be directed usefully in a gun. Dynamite, for instance, is said "to dig a hole in the ground," and is of very little use in gunnery.

Gunpowder, properly so-called, is a mixture of carbon, sulphur and saltpetre, but is of very varying proportions and chemical composition. On this account it can be made for slow or rapid action, and comes in three forms—granulated, cut, or moulded. Various kinds of gunpowder are known as blank firing, quick-firing, rifle powder, etc.

Gun-cotton is an explosive of higher power than gunpowder and is made, in its simplest form, of woody fibre treated with nitric acid. The woody fibre is often cotton wool. For a long time gun-cotton was an unreliable explosive. As Schultze powder it began to be used for sporting purposes. With the demand for a smokeless powder, new ways of treating nitrated cellulose were found. Strange as it may seem, the old injunction "Keep your powder dry" does not apply to gun-cotton, which is stored for service use containing 17 per cent. of water.

Nitro-glycerine is an oily liquid of a slight yellow tint, and is obtained by the action of nitric and sulphuric acids or glycerine. It is poisonous and very sensitive to percussion. Dynamite is made by treating a porous earth, known as kieselguhr, or similar substance, with

nitro-glycerine. Its chief use is for blasting obstacles in the way of troops, or destroying bridges, etc.

Cordite is a relatively smokeless explosive which was scientifically evolved by the British Explosives Committee. It consists largely of nitro-glycerine, gun-cotton and a solvent, and is prepared by forcing through a nozzle in the form of little threads or cords. It has the advantages of high ballistic efficiency, keeps well, and has little bad effect upon weapons or users. It is easy and safe to manufacture. A box full of cordite can be fired through with a bullet, or otherwise violently treated without danger.

There are several "high explosives" of the detonator class which are occasionally used in warfare. Some of these are derived from benzene, a coal-tar by-product, which is nitrated and known as nitro-benzene and di-nitro-benzene. Picric acid is a composition derived from carbolic acid. When melted and solidified it is known as lyddite. Other explosives prepared from picric acid are very dangerous to make and use, and none of them is smokeless.

Amongst other explosives are nitro-amino-acetic acid, mercury fulminate, silver fulminate compounds of acetylene, etc., which are used sometimes to form very sensitive fuses for exploding propellants.

The explosive mine has come into some prominence during the war. These are either laid floating on the sea as a protection to harbours and channels, or are buried in the earth near the approaches to forts. Floating mines are so constructed that they explode on coming into contact with a vessel. These acts of hostility are circumvented by means of mine trawlers, which during the present war have been steam trawlers specially commissioned by the British Admiralty for purposes of sweeping the seas where mines are suspected to be laid. Land mines are fired by electric wires controlled from the fort.

Fortifications, their Location, Construction and Equipment

The main lines which modern fortifications follow are: That in the first place the girdle of a fortress

shall be thrown out to such a distance that direct bombardment of the place cannot take place. Secondly, that the guns in the fortress shall be protected by armour, but that the bulk of the defending artillery must be outside the defended fortress. Thirdly, that the defence must depend to a very large extent upon the infantry, and that for this purpose the forts should be connected one to another by means of infantry entrenchments. Fourthly, that the lines of communications should be kept open and well guarded between the main fortress and the girdle of defensive fortresses. The guns outside the fortresses are either to be concealed or protected by means of cupolas, and the entrenchments of the infantry should be made bomb-proof. The strength of a fortified position depends upon its communications, the rapidity with which the defending infantry can co-operate, and the concealment of its guns.

The differences between permanent, semi-permanent and field fortifications were a century ago very much more strongly marked than they are at the present time. In modern warfare no masonry defences are necessary to make a place defensible, and in a short time, with surprisingly little material, very strong fortifications can be made. The elementary field fortifications, such as the use of obstacles for defence, have been utilized since warfare first began. Trenches, abatis, and stakes have always formed a part of the protective measures of even savage tribes.

The main points to be noticed in modern field fortifications are: That the works erected are adapted to the ground which is being defended. The line of the trenches usually follows the natural line of the hill and valley on which they are erected. Secondly, the erection of elaborate bomb-proof shelters and parapets has been made practically unnecessary, since no military work can be thrown up in a short time which is able to resist the highly explosive shell fired to-day. Thirdly, the most important point of all is to obtain a concealed position. Fourthly, although obstacles are still used and erected, such as barbed

wire entanglements and pits, these are gradually falling out of use, though they are still of considerable value to check the onrush of the enemy and force him to advance only under difficulties. The final object of field fortifications is to give the enemy as little shelter as possible.

Aeroplane Equipment and Fittings

A good deal of misapprehension exists as to the position of Great Britain in regard to air-craft, because the officers engaged in the dangerous business of flying have made it a point of honour to keep their performances secret and everything appertaining to air-craft is highly confidential.

So far as the Army is concerned there are seven aeroplane squadrons in all, a squadron consisting of four craft with another two held in reserve. The great problem of the aeroplane for the purpose of war, and especially for this country, is to have a craft that will fly at a great speed, but which will also remain in the air at a slow speed. The second, indeed, is more important than the first. Though facts and figures are confidential, it is a problem which has been more effectively solved by British constructors than those of any other nation.

The load carried on both naval and military machines besides the pilot, and generally a passenger, is made up as follows: (*a*) Fuel, which varies in amount according to the type of machine, for a duration of flight of anything from two hours to eight hours, and includes petrol and lubricating oil; (*b*) Instruments: these include a compass, an aneroid barometer to indicate the height at which the machine is flying, a revolution indicator to show the speed at which the engine is running, and an air speed indicator to show the speed at which the machine is travelling through the air. The latter instrument also shows whether the pilot is ascending or descending too steeply, because it either registers below or above the safe flying speed of the machine; (*c*) The machine also carries a kit of tools for simple repairs to the engine and the aeroplane, and a few spare

parts; (*d*) It also generally carries a "Tabloid" first-aid outfit in case of accident.

Pilot and passenger generally carry revolvers or magazine pistols, but bombs are not carried unless the machine is out expressly on a bomb-dropping expedition. Naval air-craft are, in addition to the above, almost all fitted with wireless apparatus. A number of British seaplanes are now built with wings which can be folded up so that the machine can be stowed on any warship of moderate size. These machines are used as scouts, but not as destroyers except against airships. Special sea-going parent-ships are under construction, these being intended to carry air-craft only, but none have yet been produced.

Explosive Aircraft Bombs

But little data has been accumulated concerning the effect of dropping explosive bombs from aerocraft. The fact is known, however, that the destructive power of such a bomb is limited by the fact that the impact of the bomb forms a crater, causing the fragments to be deflected upwards at an angle of about 45 degrees. Still there are occasions when a bomb dropped among a general's staff, or among mounted troops in massed formation, might do considerable mischief. In foreign armies the science of shell dropping is therefore held to be worth cultivating. The Aero Club of France offers annual prizes for a shell dropping competition. In such a competition the airman has to take up five bombs of 50 lbs. each and to drop them, in the course of one flight, into a circle 50 feet in diameter, from a height of not less than 750 feet. In the second competition the bombs are to be dropped into a rectangle 50 feet by 500 feet, from a height of not less than 3,000 feet.

CHAPTER VI

Military Requirements of the Nations

THE terms of service in the armies and navies of the world are very varied, ranging in theory from absolute conscription to an absolutely voluntary system. Generally speaking, liability of male inhabitants to serve in the army obtains in all countries except the United Kingdom; but the bulk of all men in the world's navies are volunteers.

The British Army Requirements

The British Army is now organized in two lines: the Regular, with its Reserve and Special Reserve; and the Territorial Force. Service is entirely voluntary, although the Government may put into force the Militia Ballot Act. Enlistment is for twelve years, with different periods of service with the colours as follows: Cavalry, Line Infantry and Royal Engineers, seven years; Royal Horse and Royal Field Artillery, six years; Royal Garrison Artillery, eight years; Foot Guards, three years. Certain trades in the Royal Engineers serve for three years; and boys who enlist between 14 and 18 also do special service. The remaining years of enlistment are passed in the Reserve. Reservists may engage for another four years.

The Special Reserve consists of those who have not served in the Army, but are willing to be called up on mobilization. These men may receive a partial military training, or be of a class of specialists whose occupations are useful in such branches as the Railway Service Corps, Army Post Office Corps, etc. A special reservist who elects to be trained has six months' instruction in all branches, and fifteen days training each year. He is enlisted for six years.

The Territorial Army must undergo so many drills per annum and at least eight days' camp training. Enlistment is for four years certain, with annual optional renewals thereafter. In practice there is a certain amount of elasticity, but 88 per cent. of the men satisfy the minimum requirements. In the Indian Army service is voluntary, and enlistment is for three years.

The training of officers varies from time to time, but is nominally for two years at a military training college.

CANADA.—In Canada every male between 18 and 60 is liable for military service, but there is no compulsion. Cadet corps are

popular. About one million Canadians have been or are being trained to bear arms.

AUSTRALIA.—All able-bodied males between 12 and 25 must undergo training either as cadets or for the Citizen Defence Force. Men between 19 and 25 do eight days' camp and the equivalent of eight days' drill annually. The cadets have shown a marked disinclination to put in the requisite number of drills.

NEW ZEALAND.—A system is being introduced similar to that in force in Australia, but with a slightly increased number of drills. Here also compulsory military training for schoolboys is unpopular.

SOUTH AFRICA.—All males up to the age of 60 are liable to service, but in practice not more than 55 per cent. of men attaining the age of 21 are trained in the Active Citizen Force until the age of 25. The service and its reserve is popular.

AUSTRIA-HUNGARY.—Conscription is in force, but is variously administered among the different nationalities. There is a "common army" and two second line armies: the Austrian Landvehr, and the Hungarian Honved, supported by various Landsturms of older men. The training required is adapted to the local sentiments of the various parts of the empire.

BELGIUM.—A system of compulsory service is in force. Men who do not serve with the colours, for 15 or 24 months (according to the branch), are enrolled in the Civil Guard (Garde Civique) either as an active or a non-active member for the maintenance of public order.

DENMARK.—A selective conscription obtains. Men are liable to 16 years' service, half with the colours and half with the reserve. Only a portion of the men are trained for a period of from five to twelve months. The Danish army uses the Krag=Jörgensen rifle and a quick-firing Krupp gun.

FRANCE.—The army is based on a combined conscription and volunteer basis, considerably modified by the three-year service law of 1912, which has not yet been entirely worked out. Men either volunteer or are selected by ballot, and serve three years in the active army, ten years in its reserve; or six years in the Territorial force and an equal period in the reserve. Reservists and territorials undergo periodical training. Officers and overseas forces are entirely voluntary, but the natives in Algeria are conscripted. French infantry use the Lebel magazine rifle; the artillery the famous 75-mm. gun; and also the remarkable Rimailho howitzer.

GERMANY.—Conscription is in force. Every German fit to bear arms serves for seven years in the regular army, followed by five years in the first levy of the Landwehr, and thence up to his thirty-ninth year in the second levy. Cavalry and artillery spend three years with the colours; other men two years. Under the German system it is computed that nearly half the annual contingent of able-bodied men escaped service.

ITALY.—Able-bodied men are liable to serve, but a considerable proportion is exempted. Those chosen are divided by lots into three portions. The first portion is fully trained; the second goes through recruit and repetition training, and the third are untrained reserves. The service is two years with the colours, six on furlough and four in the mobile militia. The last force is occasionally embodied for up-to-date training. Less than one-third of the entire Italian army can be said to be fully trained.

JAPAN.—The Japanese are liable for military service between the ages of 17 and 40. The infantry service is for two years, and other branches three years, with the colours. A total period of seven and one-third years must be completed with the colours or reserves. A further period of ten years is passed in the second reserve and the remaining years of liability in what is known as the "National Army." About one quarter of the available contingent is taken for service, and of these about one-fifth is only partially trained.

MONTENEGRO.—A militia system is in force, each district being called upon to furnish its quota of men, who are liable from 19 to 62 years of age. The soldier serves two years in the recruits' class, with a maximum of six months' training each year, and thirty-three years in the active army, necessitating obligation for annual training, and ten years in the reserve. In practice the system is not rigorously applied.

NETHERLANDS.—Every citizen is liable to fifteen years' service, of which eight is in the militia and seven in the Landweer. The period of active training varies from four to eighteen months. The older men are incorporated in the Landsturn. Militia are drawn by ballot and are called out at variable periods of the year. The army in the Dutch East Indies is voluntary, supported by a territorial militia. The arms used are the Mannlicher rifle and a Krupp quick-firing gun.

RUSSIA.—The army is divided into four great national divisions: European, Caucasian, Turkestan, and the Amur forces. Conscription is in force, but exemptions are numerous, about one-third of the available men being usually required. Liability to serve lasts from the age of 21 to 43. Three or four years are spent with the colours fifteen or sixteen in the reserve, and the remainder in the militia, which also includes the surplus of the annual contingent not called up for training. The Russian Cossack forces have their own organization. A man is liable to serve after his eighteenth year, and must find his own horse and equipment. After training the Cossacks are divided into three branches, one of which serves, and the others are granted unlimited furlough. There is five years' service in the reserve.

SERVIA.—Service is compulsory from the age of 17, and training compulsory to the age of 21. Soldiers serve about two years with the colours, ten years in the first reserve, seven in the second reserve, and

six in the militia. The Balkan War led to considerable modifications of this scheme. The infantry carry a Mauser rifle and the artillery use the Creusot gun.

Naval Services

BRITISH.—The terms of service in the Royal Navy and Royal Marines as to age and qualifications are too varied to be conveniently summarized, but they can be had free of charge at any post office in the form of a 50 page illustrated booklet. Generally speaking, candidates, except officers' stewards and cooks and special service seamen and stokers, are required to enter for 12 years' continuous service ; if of good character and specially recommended, they may be permitted to re-engage to complete time for pension, and at the expiration of twenty-two years' qualifying service they can take their pensions for life.

Men not wishing to engage for 12 years' service in His Majesty's fleet may enter for special service as seamen or stokers. Men so entered serve in the Fleet for a period of five years, followed by service in the Royal Fleet Reserve to complete twelve years from the date of entry.

Naval reservists who do not qualify for pensions receive 6d. a day and a gratuity on final discharge.

Boys can enter the Navy at various ages, but their service for pension is not held to begin till the age of 18. Of the many hundreds of ratings in the Navy, the chief branches of service are seamen, signallers, wireless telegraphists, engine-room artificers (including engine fitters, and turners, coppersmiths, boilermakers, engine smiths, pattern makers and moulders), stokers, fitters, turners, instruments makers, electricians, armourers, blacksmiths, carpenters, coopers, painters, plumbers, shipwrights, sick-berth, attendants, cooks, writers and stewards. In each branch age requirements and physique differ.

The Royal Marines are divided into artillery and light infantry. The age of enlistment is from 17 to 23, and is for twelve years certain with a further period of nine years (for pension), and reserve service to the age of 50.

FRANCE.—The Navy is manned partly by conscription and partly by volunteers. Liability to service extends from 18 to 50 years of age. Men liable to Army service may volunteer for the Navy. All French seafaring men are liable to conscription.

GERMANY.—The German Navy is recruited from conscripts, one-year volunteers, general volunteers, and boys. Liability begins at the age of 18.

ITALY.—Seamen are recruited by conscription from among all men following a seafaring life of 20 years of age. Service is for four years.

RUSSIA.—Seamen are recruited by conscription, and while on the active list are not allowed to marry. The number of men annually needed is fixed by law.

CHAPTER VII

The World's Food Supply and Natural Products of the World

THE whole commerce of the world, and especially the cultivation and distribution of natural products, vegetable, animal and mineral, is disturbed by the war. The figures given in the following tables are the latest available concerning the chief staple products of the world, most of which are carried from country to country in British or German ships. Much of this trade has hitherto depended upon the assured safety of the seas for the merchant ships of all nations, and upon the freedom of financial exchange made possible by the intricate organization of the world's chief markets—an organization absolutely dependent upon speedy communication by cable and postal messages. All these factors of civilization are affected more or less adversely by the war, and readers interested in the various branches of commerce can see in these tables to what extent the hostilities will affect their individual business:

AFRICA.	
GOLD COAST—	
COCOA	35,000 tons.
SOUTH AFRICA—	
WOOL..	112,000,000 lb.
WEST AFRICA—	
RUBBER	15,000 tons.
TRANSVAAL—	
GOLD	8,250,000 oz.

So far traffic with Africa has not been directly interfered with by the war, naval operations having been confined to the North Sea, the Baltic, and the Mediterranean.

ALGERIA.

WINE	200,000,000 gal.

This trade has been largely interrupted by the war, but once the Mediterranean is free for merchantmen, the export of Algerian wine should proceed normally. The bombardment of the Algerian port of Boua did not materially affect the situation.

ARGENTINA.

WHEAT	21 million qrs.
MAIZE	32 ,, ,,
WOOL	415,000,000 lb.

The transportation of these crops to Europe is of vital importance to the food supply of ourselves and our allies. It has been largely curtailed by the suspected presence of five or more German cruisers on the Atlantic, which were, however, being watched by twenty-four British men-of-war. The British Government's freight insurance scheme is a most steadying element in the situation.

AUSTRALASIA.

WOOL..	840,000,000 lb.
GOLD	2,900,000 oz.
COPPER	42,000 long tons.
SILVER	17,000,000 oz.

The imports of Australian produce are not, under all the circumstances, so vital to us as are supplies of British manufactured goods to Australia in exchange. The usual route via the Suez Canal was for a time practically closed for this trade by the war, but the Cape route has not been affected. Here there should only be delay, but not suspension.

AUSTRIA-HUNGARY.

WHEAT	23 million qrs.
BARLEY	9 ,, ,,
MAIZE	21·5 ,, ,,
RYE	20 ,, ,,
OATS	15 ,, ,,
HOPS	23·2 ,, lb.
BEET SUGAR	1,154,000 tons.
BEER	565,000,000 gal.
TOBACCO	184,000,000 lb.

The war will entirely suspend any export of these and other products from Austria to any other country but Germany.

BELGIUM.

BEET SUGAR	240,000 tons.
ZINC	181,880 long tons.

Hostilities have very seriously interfered with the harvesting of this season's beet crop and its conversion into sugar. This is one of the many factors which has sent up the price of sugar.

BRAZIL—

CANE SUGAR	235,000 tons.
COFFEE	1,500,000,000 lb.
COCOA	39,000 tons.
RUBBER	40,000 tons.

Our remarks under the head of the Argentine apply also to the products of Brazil, but Great Britain is not a large buyer of Brazilian coffee, the bulk going to the United States. Normal trade with Brazil is not likely to be seriously handicapped by the war, but her merchants will be affected by the money stringency. In normal times the United States pays Brazil for coffee by bills drawn on Great Britain.

CANADA—

WHEAT	27 million qrs.
OATS	38 " "
SILVER	33,500,000 oz.

The bringing to England of Canada's cereal harvests is practically assured by the prompt measures taken by the British and Canadian authorities. The Canadian wheat crop is six million quarters larger than that of the Argentine.

CEYLON—

TEA	190,000,000 lb.

This crop is very unlikely to be affected by the war, and its distribution to all parts of the world where Ceylon tea is used is fairly well assured. Our enemies are not large consumers of tea. The price should remain steady, unless the British Government finds itself forced to impose an additional duty.

CHINA—

RICE	55,000,000 lb.
TEA	210,000,000 lb.
SILK	14,500,000 lb.

Conditions associated with China are a little uncertain, and no one can tell to what extent the war will affect Chinese affairs. But our ally, Japan, is in fair control of the situation in the Western Pacific, and no real damage from German Navy raids can be reasonably anticipated.

CUBA—

CANE SUGAR	1,850,000 tons.

This import trade is largely controlled by the United States, which may be trusted to see that it is not seriously handicapped by the war.

ECUADOR—

COCOA	40,000 tons.

EGYPT—

COTTON	1,500,000 bales.

Egypt's cotton crop, which is noted for its quality, is likely to be delayed in reaching our mills, but against this the price of the raw material is likely to drop, as German mill requirements are likely to be *nil* for a long time.

FRANCE—

WHEAT	40 million qrs.
OATS	39·5 " "
RYE	6 " "
WINE	1,000,000,000 gal.
ALUMINIUM	10,600 tons.
IRON ORE	15,936 long tons.
COAL	38,023,000 long tons.
BEER	400,000,000 gals.
SILK	1,200,000 lb.
BEET SUGAR	515,000 tons.

As between Great Britain and France, the only items of vital importance are wine and silk. These are luxuries, and as the war is affecting the vineyards by the withdrawal of men for the army, the diminished quantity will probably just be balanced by a diminished demand.

GERMANY—

BARLEY	18 million qrs.
OATS	58·5 ,, ,,
RYE	51 ,, ,,
HOPS	23·4 ,, lb.
BEET SUGAR	1,457,000 tons.
BEER	1,500,000,000 gal.
SILVER	14,150,000 oz.
LEAD	158,750 long tons.
ZINC	232,250 ,, ,,
STEEL	14,800,000 long tons.
COAL	158,164,000 ,, ,,

GERMANY AND LUXEMBURG—

IRON ORE	29,450,000 long tons.
PIG IRON	15,325,000 ,, ,,

The only possible comment to be made concerning these important figures is a row of 0 0 0 0 0 0!

HAWAII—

CANE SUGAR	535,000 tons.

INDIA—

WHEAT	45 million qrs.
CANE SUGAR	2,390,000 tons.
RICE	89,000,000 lb.
TEA	270,000,000 lb.
TOBACCO	450,000,000 lb.
COTTON	3,442,000 bales.

Our remarks on Australia apply with great force to the distribution of the products of India. Much of this trade will, however, probably be diverted to Japan and the United States, to balance a demand usually supplied from areas directly affected by the war.

ITALY—

WHEAT	21·5 million qrs.
MAIZE	11 ,, ,,
WINE	950,000,000 gal.
SILK	10,000,000 lb.

Italy, even if she keeps out of active warfare, will be adversely affected by the proximity of hostilities. England, however, does not take a large quantity of Italy's harvests.

JAPAN—

RICE	15,000,000 lb.
TEA (Exports)	56,000,000 lb.
COPPER	51,000 long tons.
SILK	21,200,000 lb.
TOBACCO	93,000,000 lb.
BARLEY	11·5 million qrs.

The trade of our ally is likely to be hit by the war, but, at the same time, the stoppage of trade in Europe will be to her advantage.

JAVA—

CANE SUGAR	1,395,000 tons.

MEXICO—

GOLD	1,420,000 oz.
SILVER	88,000,000 oz.
COPPER	61,000 long tons.
LEAD	121,500 " "

Our trade with Mexico can afford to wait till happier times in both countries. We use, but we do not consume, her staple products; but if the war is prolonged we shall be glad of all the lead we can get for making into bullets.

NETHERLANDS—

BEET SUGAR	251,000 tons.

(EAST INDIES)—

TOBACCO	128,600,000 lb.
TIN	12,600 tons.
PETROLEUM	11,100,000 barrels.

So long as Holland is neutral in the war, this trade is not likely to be seriously affected to any degree that would not be instantly restored on a declaration of peace. In the meantime, Dutch ports are seriously incommoded.

RUMANIA—

MAIZE	10·3 million qrs.
PETROLEUM	9,723,000 barrels.

RUSSIA—

WHEAT	90 million qrs.
BARLEY	55·5 " "
OATS	112 " "

RYE	121 million qrs.
HOPS	10·5 „ lb.
BEET SUGAR	2,100,000 tons.
WINE	100,000,000 gal.
TOBACCO	200,000,000 lb.
COTTON	2,000,000 bales.
WOOL	380,000,000 lb.
GOLD	1,200,000 oz.
PETROLEUM	70,340,000 barrels.

The war will seriously interfere with the arrival of Russian produce in Great Britain, and Russia herself is likely to suffer by not being able to harvest all her crops.

SPAIN—

WINE	370,000,000 gal.
LEAD	162,250 long tons.

TURKEY—

SILK	5,000,000 lb.

UNITED STATES—

WHEAT	87 million qrs.
BARLEY	28 „ „
OATS	141 „ „
MAIZE	370 „ „
RYE	4·2 „ „
HOPS	40 million lb.
CANE SUGAR	324,000 tons.
BEET SUGAR	541,000 tons.
BEER	1,650,000,000 gal.
TOBACCO	1,113,400,000 lb.
COTTON	14,885,000 bales.
WOOL	322,000,000 lb.
GOLD	4,700,000 oz.
SILVER	58,000,000 oz.
ALUMINIUM	20,600 long tons.
COPPER	483,750 „ „
LEAD	358,000 „ „
ZINC	241,290 „ „
IRON ORE	41,000,000 long tons.
PIG IRON	23,650,000 „ „
STEEL	23,700,000 „ „
COAL	443,025,000 „ „
PETROLEUM	209,560,000 barrels.

These statistics are too huge to call for much comment. The United States, with a population of 100,000,000, is a very large consumer of her own

products. We buy from her chiefly corn, cotton, tobacco, and oil. Our supplies from this quarter are not likely to be interfered with in any way, but the problem arises: Shall we be able to send sufficient goods to America to pay for our needs?

RESOURCES OF THE UNITED KINGDOM

The following table shows the annual production of food and other agricultural products and the mineral products of the United Kingdom.

ANNUAL PRODUCTION

Wheat	57,500,000	bush.	Aluminium	7,180	tons
Barley	58,200,000	,,	Iron Ore ..	15,520,000	long tons
Oats	164,800,000	,,	Pig Iron ..	9,720,000	,,
Rye	1,500,000	,,	Steel	6,500,000	,,
Sugar (British Empire) ..	65,700,000	cwt.	Coal	271,900,000	,,
Beans	7,800,000	,,	Tin	4,800	,,
Peas	3,600,000	,,	Lead	17,000	,,
Potatoes	8,000,000	tons	Zinc	6,900	,,
Turnips and Swedes ..	24,000,000	,,	Copper	392	tons
Mangolds ..	10,000,000	,,	Silver	136,370	oz.
Hops........	36,700,000	lb.	Gold	1,914	,,
Beer	1,300,000,000	gall.	Wool	145,000,000	lb.
			Clover for Hay	5,000,000	tons
			Other grass ..	10,000,000	,,

LIVESTOCK IN THE UNITED KINGDOM AT OUTBREAK OF WAR

Horses.	Cattle.	Sheep.	Pigs.
2,000,000	12,000,000	28,000,000	4,000,000

	Cwt.	Value.
Fish landed in 1913	25,000,000	£13,000,000

These figures merely give to the mind's eye an abstract picture of our resources in times of need. The Board of Trade assures us that the food supply is practically secure, though, of course, our whole maritime trade will suffer by suspension and diversion.

PRINCIPAL ARTICLES OF FOOD IMPORTED INTO UNITED KINGDOM AND HELD FOR CONSUMPTION

ANNUALLY

Wheat and Wheaten Flour	123,000,000	cwt.	Tea	295,000,000	lb.
Maize	44,000,000	,,	Potatoes	5,700,000	cwt.
			Currants (dried)	1,200,000	,,
			Raisins	670,000	,,

Rice and Rice Flour	6,000,000	cwt.
Coffee	250,000	,,
Cocoa (raw)..	55,000,000	lb.
Cocoa (preparations of) ..	212,000	cwt.
Sugar	32,200,000	cwt.
Wine	11,200,000	gals.
Butter	4,000,000	cwt.
Margarine ..	1,340,000	,,
Cheese	2,230,000	,,

BRITISH IMPORTED WHEAT SUPPLIES

The following statement shows whence our imported wheat supplies came last year:

From	Wheat. Cwts.	Wheaten flour. Cwts.
BRITISH EMPIRE	50,700,000	4,500,000
U.S.A.	34,100,000	6,200,000
ARGENTINA	14,800,000	200,000
RUSSIA	5,000,000	—
REST OF WORLD	1,300,000	1,100,000
TOTAL	105,900,000	12,000,000

MUTTON AND BACON FROM OVERSEAS

More than one-half of our supplies of meat is raised in the United Kingdom. As to mutton, the imports in 1913 were as follows:

From	Mutton Cwts.	Bacon Cwts.
BRITISH EMPIRE	3,900,000	200,000
ARGENTINA	1,000,000	—
DENMARK	—	2,300,000
U.S.A.	—	1,800,000
RUSSIA	—	200,000
OTHER PLACES	300,000	400,000
TOTAL	5,200,000	4,900,000

TOTAL IMPORTED MEAT SUPPLIES

	1901. Cwts.	1913. Cwts.
NORTH AMERICA	14,517,000	3,283,000
SOUTH AMERICA	2,171,000	9,640,000
AUSTRALIA	2,661,000	5,933,000
EUROPE	2,470,000	3,965,000
OTHER COUNTRIES	—	10,000
TOTAL	21,819,000	22,831,000

BRITAIN'S COTTON SUPPLY AND INDUSTRY

Continental Nations at War.	Production, Bales of 500 lbs.	Spindles at Work Before the War.	Normal Need in 1914, Estimated Bales.
United Kingdom ..	.. None	55,576,000	5,400,000
Germany ..	.. None	10,920,000	1,800,000
Austria ..	.. None	4,864,000	900,000
France ..	.. None	7,400,000	1,000,000
Russia ..	..(i.) 498,000	8,950,000	2,100,000
Belgium ..	.. None	855,000	250,000
Portugal ..	.. None	482,000	70,000
Italy ..	.. None	4,580,000	800,000
Switzerland..	.. None	1,398,000	91,000
Spain ..	.. None	2,200,000	330,000
Netherlands	.. None	471,000	85,000
Sweden ..	.. None	530,000	80,000
Norway	.. None	75,000	11,000
Denmark ..	.. None	87,000	12,000
United States	1 ,313,000	30,579,000	5,600,000
Japan ..	.. None	2,250,000	1,350,000
India ..	..3,203,000	6,400,000	2,000,000
Canada ..	.. None	855,000	116,000
Other countries	.. —	3,100,000	800,000

Total Spindles at work before the war 142,186,000

Other countries producing Cotton. Bales of 500 lb. : Egypt, 1,471,000 ; Brazil, 310,000 ; Mexico, 131,000 ; Peru, 73,000 ; Persia, 106,000.

Estimated Cotton Production of the World.	Spindles.	Estimated Need about, Bales.
21,659,000	142,186,000	22,000,000

(i.) Exclusive of Khiva and Bokhara.

CHAPTER VIII

Military Strength and National Wealth of the Nations

NEARLY sixteen million armed men are engaged in the present world-war. The following statistics show the relative strength of the nations in times of peace and war:

THE ARMIES OF THE NATIONS

	Peace Strength.			War Strength.	
	Officers	Men	Horses and Mules	Total War Strength i.e., Peace and Reserves	Available for Duty. (A) Unorganized
Germany ..	36,000	754,000	157,000	5,400,000	1,000,000
Austria ..	34,000	300,000	89,000	1,895,000	3,000,000
France ..	29,000	620,000	150,000	4,000,000	1,000,000
Belgium ..	3,500	44,000	10,400	250,000	400,000
Russia ..	56,500	1,100,000	250,000	5,500,000	5,200,000
United Kingdom	25,000	251,000	28,000	(C)799,000	2,000,000
Japan ..		250,000	91,000	1,200,000	2,000,000
Total Belligerents	184,000	3,319,000	775,400	19,044,000	14,600,000
Italy ..	16,000	290,000	64,300	1,200,000	1,200,000
Spain ..	13,500	120,000	—	350,000	800,000
Netherlands ..	1,600	35,000(B)	—	180,000	150,000
Denmark ..	834	14,000	—	70,000	125,000
Sweden ..	2,300	81,700	—	450,000	200,000
Norway ..	1,500	35,000	—	115,000	100,000
Portugal ..	2,800	30,000	—	150,000	200,000
Bulgaria ..	3,900	62,000	—	380,000	100,000
Servia ..	2,200	32,000	—	361,000	60,000
Roumania ..	4,500	95,000	21,500	500,000	175,000
Switzerland ..	1,000	23,000	—	275,000	50,000
Turkey ..	30,000	400,000	—	700,000	2,000,000
Greece ..	1,900	29,000	—	150,000	200,000

(A) Figures based on male population of military age; (B) Exclusive of Colonial Army of 35,000; (C) Exclusive of Dominion Forces.

WAR CRAFT OF THE POWERS AT WAR

The naval strength of the rival nations amounts to a total of no less than 2,280 ships, not counting coal vessels. The figures are:

	Dread-noughts	Battle-ships	Armd. & Protected Cruisers	Tor-pedo craft	Torpedo boat Des-troyers	Sub-marines	Other war craft	Total	Aero-planes	Air-ships
Austria	3	10	9	60	12	6	3	103	150	1
Germany	20	13	50	80	123	23	4	313	1,500	20
Russia	Bdg.	9	14	29	96	20	—	168	800	1
France	4	17	34	169	73	73	—	370	800	3
U.K.	29	40	126	237	191	64	13	700	250	3
Italy	3	11	22	96	35	20	11	198	200	4
Japan	3	16	33	36	50	13	13	164	—	—
Greece	—	2	4	12	14	2	11	45	—	—
Turkey	2	4	2	18	8	—	15	49	—	—
U.S.A.	10	25	32	24	46	25	8	170	—	—
Total	74	147	326	761	648	246	78	2,280	3,700	32

The figures below reveal the gigantic character of the struggle—a conflict involving the destinies of more than 380,000,000 people, inhabiting an area of more than 9,000,000 square miles, and supported in this war of unprecedented magnitude by a combined wealth of more than fifty billion pounds sterling.

POPULATION, AREA AND WEALTH OF NATIONS AT WAR

	Population.	Wealth.	Area.
Austria-Hungary	50,000,000	£5,000,000,000	360,034
Servia	5,000,000	——	7,225
Germany (not including Colonies)	65,000,000	12,000,000,000	228,780
Russia	164,000,000	8,000,000,000	8,400,000
Belgium	7,500,000	1,800,000,000	11,400
France	40,000,000	9,000,000,000	207,100
United Kingdom	45,000,000	16,000,000,000	120,651
Portugal	5,500,000	500,000,000	35,500
Servia	—	750,000,000	—
Italy	35,000,000	5,000,000,000	110,000
Japan	50,000,000	7,500,000,000	140,000
Total	467,250,000	£65,550,000,000	9,720,690

AREA AND POPULATION OF GERMAN COLONIES

Although the over-sea possessions of Germany total an area equal to one-third that of all Europe, the German Government has not made a success of the country's colonies, and only an infinitesimal fraction of

the emigration from Germany have gone to these parts of the earth which, up to the war, flew the German flag. Of that country's total colonial population of twelve million, only 7,500 are German settlers and residents! The other Germans in these colonies belong to the country's military forces there, numbering 4,500.

	Area. Sq. mile.	Population.
Togoland	33,659	1,003,000
Cameroons	287,570	2,537,000
German S. W. Africa	322,347	82,000
German East Africa	384,070	7,496,000
German New Guinea	93,596 (A)	600,000
Samoa	993	35,000
Kiantchou	213	161,000
Total Over-Sea Possessions	1,122,448	11,914,000

(A) Including Caroline, Pellew, Marianne and Marschall Islands.

THE WORLD'S FUEL SUPPLY

Principal Producers.	Coal. Long Tons.	Petroleum. Barrels.
United Kingdom	271,000,000	—
German Empire	158,000,000	—
France	38,000,000	—
Russia	23,000,000	70,300,000
Belgium	22,000,000	—
Austria	15,000,000	12,600,000
U.S.A.	443,000,000	209,500,000
Roumania	—	9,000,000
Netherlands' East Indies	—	11,000,000
Totals	970,000,000	312,400,000

WEALTH OF THE UNITED KINGDOM

While the revenues and expenditures of countries are known to a fraction, there is a contrariety of estimate regarding their wealth. One estimate recently submitted to the Royal Statistical Society gives Germany's wealth, for example, at £12,200,000,000, and another, £16,000,000,000. The wealth of France is placed at £9,000,000,000. In the accompanying table, given by the Royal Statistical Society in the number of its Journal current with the outbreak of war, the wealth of the United Kingdom is carefully compiled, showing the total to be more than £16,000,000,000. The wealth of the British Empire is placed at £22,250,000,000, showing it to be the richest nation, even eclipsing the U.S.A.

THE UNITED KINGDOM'S WEALTH

(As reported to the Royal Statistical Society.)

	Income.		Capital.
Lands	£52,219,000	..	£1,305,475,000
Houses..	223,813,000	..	3,357,195,000
Other Profits	1,297,000	..	32,425,000
Farmers' Profits	17,457,000	..	139,656,000
Public Funds *less* Home Funds ..	35,049,000	..	700,000,000
Quarries, Mines, Ironworks	23,109,000	..	92,436,000
Gasworks, Waterworks	19,585,000	..	391,760,000
Canals, Docks, Fishing, etc... ..	2,607,000	..	52,140,000
Other Public Companies	199,082,000	..	2,986,230,000
Foreign and Colonial Securities and Coupons	50,828,000	..	1,016,560,000
Railways in U.K.	46,099,000	..	1,152,475,000
Railways out of U.K.	28,016,000	..	560,320,000
Other Profits and Interest	16,654,000	..	233,080,000
Trades and Professions (one-fifth of total Income of £222,676,000) ..	44,533,000	..	667,995,000
Total under Income Tax	—	..	12,688,727,000
Trades and professions omitted, 20 per cent. of £44,533,000	8,906,000		
Income of non-tax paying classes, dervided from capital	100,000,000		
Income from investments abroad, etc.	60,000,000		
Movable property not yielding income, furniture, etc.			1,000,000,000
Government and local property ..			750,000,000
			£14,438,727,000

AUSTRIA'S RISING EXPENDITURE

Although Austria's revenue has grown in seven years from two million kronen to more than three, the public debt of the Dual Monarchy increased from a little over five million to more than six and a half million. It should be said, however, that a great sum—400,000,000 kronen—has gone into State railways.

And Austria's army costs 100 per cent. more per annum (even in times of peace) than it cost seven years ago.

		1907.		Now.
Austria's Debt	Kr.	9,066,475,000	.. ..	12,471,149,000
		£377,770,000	.. ..	519,631,000
Austria's Revenue ..	Kr.	2,008,495,000	.. ..	3,173,309,000
	£	83,687,000	.. ..	132,221,000
Austria's Expenditure	Kr.	1,862,293,000	.. ..	3,184,361,000
	£	77,596,000	.. ..	132,682,000
Hungary's Debt	Korona	5,119,180,000	.. ..	6,592,846,000
	£	213,299,000	.. ..	274,702,000

BELGIUM, THE EFFICIENT NATION

Belgium, whose total population is only equal to that of London, and whose area is 11,400 square miles, as compared with Germany's and Austria's combined area of 688,000, has suddenly commanded the attention of the world. It has not, like other continental nations, made its army a burden, yet the developments of the war showed that it has not neglected the art of war. The amount spent on the army last year was over £2,790,000. What Belgium has accomplished with a total revenue of £29,400,000, which is much less than Germany spends on its army alone (£46,200,000), reveals an almost incomparable national efficiency.

		1907.		Now.
Belgium's Revenue	Francs	706,384,999	.. ..	738,023,639
	£	28,255,400	.. ..	29,520,946
Belgium's Expenditure	Francs	626,498,502	.. ..	810,926,435
	£	25,059,940	.. ..	32,437,057

FINANCE OF FRANCE

It is noteworthy that while the population of France is many millions less than Germany's, the revenue of the Republic (£184,600,000) is greatly in excess of the Empire's (£141,900,000). Below we give at a glance the leading figures relating to the French Republic, comparing the year 1907 with the latest figures available.

		1907.		Now.
France's Revenue—				
Direct Taxes ..	Francs	560,850,000	.. ..	605,250,000
Indirect Taxes	Francs	2,230,000,000	.. ..	2,531,954,000
Total Revenue	Francs	3,968,367,000	.. ..	4,615,549,000
	£	158,735,000	.. ..	184,722,000
France's Expenditure—				
	Francs	3,880,240,000	.. ..	4,824,515,00
	£	155,210,000	.. ..	192,981,00

FINANCE OF GERMANY

More than £34,100,000 in times of peace are collected by Germany through its customs. The curtailing of this through war—the inevitable decline of incoming as well as outgoing trade—will cause Germany to find other means of supplying revenue; and, too, the national expense because of war will increase. The burdens, therefore, upon producers in that country will be great and grevious.

Germany's Revenue,	Marks	2,517,821,000	.. ..	2,886,135,000
	£	123,793,000	.. ..	141,902,000
Germany's Expenditure—				
	Marks	2,809,867,000	.. ..	2,886,135,000
	£	138,152,000	.. ..	141,902,000

RUSSIA'S DEVELOPMENT

Russia, as its unexpectedly quick mobilization at the beginning of the war of 1914 showed, can no longer be looked upon as a static nation. And the Tzar's ukase to Poland gives evidence that St. Petersburg, too, is on the march. The revenue from the post office in Russia rose in seven years from £5,175,000 to £7,625,000, and the normal earnings of state-owned railways, aside from duties on passengers and goods, rose in the same period from £54,600,000 to £78,500,000.

The Slav seems to be coming into his own. Russia's total revenue has not overtaken its total expenditure, but the country's resources are vast, and as yet only at the beginning of their development. A dynamic Russia, dealing justly, and exploiting its own vast and incredibly rich domain, would transform, not only itself, but the industry and commerce of the world.

And Russia has been preparing its armies for efficient war, the sum spent along that line now exceeding £55,500,000 per annum, as compared with £42,900,000 seven years ago, while the total expenditure of the nation has grown in that period from two-and-a-half thousand million roubles to more than three, or, in terms of our own currency, from £272,000,000 and over to more than £334,000,000.

Russia's Revenue	Roubles	2,529,837,000	.. ..	3,131,807,000
	£	267,038,000	.. ..	330,580,000
Russia's Expenditure—				
	Roubles	2,582,608,000	.. ..	3,171,061,000
	£	272,609,000	.. ..	334,723,000
Russia's Debt ..	Roubles	8,625,560,000	.. ..	8,957,875,000
	£	910,476,000	.. ..	945,553,000

(Of which almost exactly one-third has been incurred on account of State Railways.)

STOCK OF GOLD IN THE PRINCIPAL COUNTRIES BEFORE THE WAR

	£
Austria-Hungary	73,500,000
Belgium	7,510,000
British Empire—	
Australia	45,900,000
Canada	28,500,000
United Kingdom	146,200,000
India	9,210,000
South Africa	13,250,000
Straits Settlements	1,401,000
U.S.A.	286,000,000
Bulgaria	1,585,000
Cuba	8,650,000
Denmark	7,750,000
Egypt	37,600,000
Finland	2,180,000
France	249,500,000
Germany	42,700,000
Greece	905,000
Hayti	701,000
Italy	58,800,000
Japan	27,510,000
Mexico	6,430,000
Netherlands	15,450,000
Norway	4,300,000
Portugal	2,990,000
Rumania	6,750,000
Russia	194,500,000
Servia	1,340,000
Siam	20,600
Spain	43,800,000
Sweden	5,360,000
Switzerland	13,500,000
Turkey	29,400,000
Central Am. States	289,000
Total Stock of Gold	£1,364,471,000

WORLD'S PRODUCTION OF GOLD.
ANNUAL AVERAGE.

	£
Africa	39,400,000
U.S.A.	19,900,000
Canada	2,000,000
Mexico	5,100,000
Australasia	12,400,000
Russia	6,122,000
Austria-Hungary	449,000
Germany	12,630
Italy	9,430
France	354,000
Great Britain	8,180
Argentina	57,800
Bolivia and China	49,000
Columbia	655,000
Ecuador	56,900
Brazil	785,000
Venezuela	75,200
British Guiana	183,900
French Guiana	469,000
Peru	94,000
Central America	695,000
Japan	825,000
China	683,000
Corea	595,000
India, British	2,754,000
British E. Indies	275,100
Total, average production of Gold, Annually	£1,393,530,140

CHAPTER IX

The Cost of War

THE table below shows that before the war broke out the United Kingdom and the other nations involved were pledged to a year's expenditure of upwards of £131,000,000 for their navies, and upwards of £233,000,000 for their armies, a military total of £364,000,000; and, adding the military expenditure, in times of peace, of Japan and the United States, the eight military powers would have expended before the close of this year on their fleets and armies nearly half a billion pounds sterling, even had there been no war.

The military and naval budgets for 1913-14—a year of peace for the eight Powers named—were, in round numbers, as follows:

	Navy.		Army.
United Kingdom	£47,000,000	....	£28,000,000
Russia	24,200,000	....	67,000,000
Germany	23,000,000	....	60,000,000
France	20,840,000	....	36,500,000
Italy	10,000,000	....	16,800,000
Belgium	—	....	2,700,000
Austria	6,000,000	....	22,100,000
	£131,040,000	....	£233,100,000
Japan	9,800,000	....	9,900,000
United States	29,400,000	....	30,000,000
Total 8 military Powers ..	£170,240,000	....	£270,300,000

Grand total: Navy	£170,240,000	
„ „ Army	270,300,000	
		£440,540,000

In the United Kingdom and in the Continental Powers named, the percentage of the annual military appropriation that has gone into the more or less permanent machinery of war—in fortresses, siege guns, light artillery, fighting ships, transports, wagons, air-craft, arsenals, ammunition and all the other equipment for war—is far greater than is popularly thought.

For the dreadnoughts completed and under way, the building of new fortresses, the reconstruction and strengthening of old ones, for extraordinary replenishings of materials as a result of wars, and for the upkeep of the fleets and armies, there has been in the past ten years an annual expenditure for war purposes on the part of the United Kingdom, Germany, Austria, France, Russia and Belgium of about £300,000,000, or a gross total of three billion pounds sterling. Fifty-five per cent. is estimated to be a conservative figure for what has gone into plant, material and equipment. In other words, the "business" of war in Europe during the preparatory decade leading up to the present Armageddon, represented an invested capital of £1,650,000,000 !

This outlay is the hugest investment in all the annals of enterprize.

In 1910, Edgar Crammond, Esq., read a paper before the Institute of Bankers, in which he tabulated the cost of three great wars, as follows :

Franco-Prussian War :	
From July 15, 1870 to March, 1871—	
France	£544,000,000
Germany	77,550,000
Total	£621,550,000
South African War :	
From October 11, 1899 to May 31, 1902	£217,066,000
Russo-Japanese War :	
From February 9, 1904 to August 31, 1905—	
Japan	£203,094,000
Russia	300,000,000
Total	£503,094,000
Grand total	£1,341,710,000

That sum, great as it was, was actually less than the nations now involved have spent in ten years in the machinery and material for the present conflict, whose magnitude and whose cost is unprecedented.

In regard to the Franco-Prussian War there have been various estimates of the cost, some authorities putting the cost to France at £720,000,000, including in this sum, of course, the indemnity of £213,000,000 and the loss to France of the value of Alsace and Lorraine. The total loss to France shows the wonderful increase in the cost of wars, for that estimated sum, £720,000,000, would almost cover the cost to England of its 20 years of war with Napoleon !

What the war itself will cost is capable of calculation. Military experts agree that at least 8,500,000 combatants are under arms for land warfare ; to these must be added 340,000 seamen. According to Balkan War figures, the cost of each man mobilized amounts to 10s. a day, not including ammunition. This amounts to £4,420,000 daily or £132,000,000 monthly.

Estimates can also be arrived at as to the cost of ammunition in battle. The cartridge of an ordinary service rifle costs rather more than a half-penny. Supposing that on the average 2,000,000 men are in the firing line, and that these men come into conflict twice weekly with a firing rate of 100 rounds, the cost for small arm ammunition totals £1,000,000 weekly.

Artillery fire is more difficult to estimate. Germany has on both frontiers 2,000 field artillery and probably as many more guns in her fortresses. Assuming that the allies have an equal number, and that half these guns are brought into operation once a week, firing 50 rounds at an average cost of £10 a charge, the total expenditure is £2,000,000 a week.

If to this £3,000,000 we add an equal sum for wastage of horseflesh, fuel, supplies and equipment, the actual cost of supplies in addition to maintenance of men, is £25,000,000 monthly.

The cost of naval ammunition is not constant as in land warfare. It is known that the cost of a single discharge from a heaviest calibre gun is at least £800, and of a lighter calibre, £200.

Taking the average number of big guns on each battleship to be ten and of smaller calibre sixteen, and that the number of shots in an engagement from the larger guns would be ten each and from the smaller guns twenty-five, £160,000 would be the cost of the ammunition of one battleship in a heavy engagement. Presuming that before the war comes to a close our naval forces will be engaged in force on at least one occasion, and that the total number of battleships which will take part in this engagement on both sides will be at least forty, the cost of such an engagement, without counting the participation of smaller craft, must in ammunition alone total £6,400,000.

The total maintenance cost of a four months' war is therefore estimated at	£526,000,000
Ammunition and supplies cost	106,000,000
Wearing out and destruction of equipment (one-half the total in use)	150,000,000
Cost of administration (estimated from regular military and naval expenditures of the countries) ..	81,000,000

Here is a tremendous total of £863,000,000, more than the total annual expenditures of all the Governments at war—nearly the total income of all the property in the United Kingdom for one year—more than the production of any single commodity in the world ; and yet this does not include the unlimitable economic loss of production, men killed, property destroyed, working time lost, interference with business, and the expense for many years following to repair the ravages of war.

That is the cost of war.

CHAPTER X

The British Army

THE British Army, not so large as the armies of France, Germany or Russia, is distinguished for its compact efficiency. The unit is the Regiment, the fullest possible particulars of the personnel of which are to be found in the "Monthly Army List" published by the British Government, price 1s. 6d. This gives, month by month, a distribution list of Officers on the Active List of the Regular Army, the Royal Marines, Special Reserve, Territorial Force, Reserve of Officers, etc.

So many changes are being made daily in the stations of our Army and its staff that anything like a serviceable account of such details is out of question. We give below, however, in the official order, a list of all the regiments in the Army, together with a description of the regimental full dress uniform. The old and familiar regimental numbers are also given for the infantry regiments.

Cavalry

1st Life Guards.—Uniform, scarlet. Facings, blue. Plume, white.

2nd Life Guards.—Uniform, scarlet. Facings, blue. Plume, white.

Royal Horse Guards (The Blues).—Uniform, blue. Facings, scarlet. Plume, red.

1st (King's) Dragoon Guards.—Uniform, scarlet. Facings, blue. Plume, red.

2nd Dragoon Guards (Queen's Bays).—Uniform, scarlet. Facings, buff. Plume, black.

3rd (Prince of Wales's) Dragoon Guards.—Uniform, scarlet. Facings, yellow. Plume, black and red.

4th (Royal Irish) Dragoon Guards.—Uniform, scarlet. Facings, blue. Plume, white.

5th (Princess Charlotte of Wales's) Dragoon Guards.—Uniform, scarlet. Facings, dark green. Plume, red and white.

6th Dragoon Guards (Carabiniers).—Uniform, blue. Facings, white. Plume, white.

7th (Princess Royal's) Dragoon Guards.—Uniform, scarlet. Facings, black. Plume, black and white.

1st (Royal) Dragoons.—Uniform, scarlet. Facings, blue. Plume, black.

2nd Dragoons (Royal Scots Greys).—Uniform, scarlet. Facings, blue. Plume, white.

3rd (King's Own) Hussars.—Uniform, blue. Collars, scarlet. Busby-bag, Garter blue. Plume, white.

4th (Queen's Own) Hussars.—Uniform, blue. Busby-bag, yellow. Plume, scarlet.

5th (Royal Irish) Lancers.—Uniform, blue. Facings, scarlet. Plume, green.

6th (Inniskilling) Dragoons.—Uniform, scarlet. Facings, primrose. Plume, white.

7th (Queen's Own) Hussars.—Uniform, blue. Busby-bag, scarlet. Plume, white.

8th (King's Royal Irish) Hussars.—Uniform, blue. Busby-bag, scarlet. Plume, red and white.

9th (Queen's Royal) Lancers.—Uniform, blue. Facings, scarlet. Plume, black and white.

10th (Prince of Wales's Own Royal) Hussars.—Uniform, blue. Busby bag, scarlet. Plume, black and white.

11th (Prince Albert's Own) Hussars.—Uniform, blue. Overalls, crimson. Busby-bag, crimson. Plume, crimson and white.

12th (Prince of Wales's Royal) Lancers.—Uniform, blue. Facings and Plume, scarlet.

13th Hussars.—Uniform, blue. Collars, buff. Busby-bag, buff. Plume, white.

14th (King's) Hussars.—Uniform, blue. Busby-bag, yellow. Plume, white.

15th (The King's) Hussars.—Uniform, blue. Busby-bag and Plume, scarlet.

16th (The Queen's) Lancers.—Uniform, scarlet. Facings, blue. Plume, black.

17th (Duke of Cambridge's Own) Lancers.—Uniform, blue. Facings and Plume, white.

18th (Queen Mary's Own) Hussars.—Uniform, blue. Busby-bag, blue. Plume, scarlet and white.

19th (Queen Alexandra's Own Royal) Hussars.—Uniform, blue. Busby-bag and Plume, white.

20th Hussars.—Uniform, blue. Busby-bag, crimson. Plume, yellow.

21st (Empress of India's) Lancers.—Uniform, blue. Facings, french grey. Plume, white.

Yeomanry

TERRITORIAL FORCE

REGIMENTS OF YEOMANRY

Ayrshire (Earl of Carrick's Own).—Uniform, blue. Facings and Busby-bag, scarlet.

Bedfordshire.—Uniform, blue. Facings, white. Plume, black and white.

Berks.—Uniform, blue. Facings, scarlet.

Buckinghamshire (Royal Bucks Hussars).—Uniform, green. Facings and Busby-bag, scarlet. Plume, white.

Cheshire (Earl of Chester's).—Uniform, blue. Facings, scarlet. Busby-bag, white. Plume, red and white.

Denbighshire (Hussars).—Uniform, blue. Facings and Busby-bag, scarlet. Plume, white.

Derbyshire.—Uniform, blue. Facings, scarlet. Plume, red and white.

Royal 1st Devon.—Uniform, scarlet. Facings, blue. Plume, scarlet and white. Busby-bag, scarlet.

Royal North Devon (Hussars).—Uniform, blue. Facings and Busby-bag, scarlet. Plume, scarlet and white.

Dorset (Queen's Own).—Uniform, blue. Facings and Busby-bag, scarlet. Plume, white.

Essex.—Uniform, green. Facings, scarlet. Plume, scarlet.

Fife and Forfar.—Uniform, scarlet. Facings, blue.

Glamorgan.—Uniform, blue. Facings and Plume, white.

Gloucestershire (Royal Gloucestershire Hussars).—Uniform, blue. Facings, blue. Busby-bag, scarlet. Plume, scarlet and white.

Hampshire (Carabiniers).—Uniform, blue. Facings and Plume, white.

Herts.—Uniform, scarlet. Facings, white. Plume, black.

Royal East Kent (The Duke of Connaught's Own) (Mounted Rifles).—Uniform, rifle-green. Facings, scarlet. Plume, red and green.

West Kent (Queen's Own).—Uniform, blue. Facings and Busby-bag scarlet. Plume, red and white.

Lanarkshire.—Uniform, blue. Facings, scarlet.

Lanarkshire (Queen's Own Royal Glasgow and Lower Ward of Lanarkshire).—Uniform, dark blue. Facings, scarlet. Plume, black.

Lancashire Hussars.—Uniform, blue. Busby-bag, crimson. Plume, crimson and white.

Duke of Lancaster's Own.—Uniform, scarlet. Facings, blue. Plume, white.

Leicestershire ("Prince Albert's Own").—Uniform, blue. Facings, scarlet. Busby-bag, red. Plume, white.

Lincolnshire.—Uniform, green. Facings, white. Plume, green.

City of London (Rough Riders).—Uniform, blue grey. Facings, purple. Plume, light blue.

1st County of London (Middlesex, Duke of Cambridge's Hussars).—Uniform, green. Facings, black. Busby-bag, scarlet. Plume, green and scarlet.

2nd County of London (Westminster Dragoons).—Uniform, scarlet. Facings, purple. Plume, white.

3rd County of London (Sharpshooters).—Uniform, green. Facings and Busby-bag, green. Plume, white.

Lothians & Border Horse.—Uniform, scarlet. Facings, blue. Plume, white.

1st Lovat's Scouts.—Uniform, blue. Facings, blue.

2nd Lovat's Scouts.—Uniform, blue. Facings, blue.

Montgomeryshire.—Uniform, scarlet. Facings, black. Plume, white.

Norfolk (The King's Own Royal Regiment).—Uniform, blue. Facings and plume, yellow.

Northamptonshire.—Uniform, blue. Facings, light blue. Plume, light blue and white.

Northumberland (Hussars).—Uniform blue. Busby-bag, scarlet. Plume, scarlet and white.

Nottinghamshire (Sherwood Rangers).—Uniform, green. Facings, green. Busby-bag, scarlet. Plume, green and white.

Nottinghamshire (South Nottinghamshire Hussars).—Uniform, blue. Busby-bag, scarlet. Plume, red and white.

Oxfordshire (Queen's Own Oxfordshire Hussars).—Uniform, dark blue. Facings and Busby-bag, mantua purple. Plume, mantua purple and white.

Pembroke (Castlemartin).—Uniform, blue. Facings, white.

Scottish Horse.—Uniform, atholl grey. Facings, yellow. Plume, black cock feathers.

Shropshire.—Uniform, blue. Facings, scarlet. Plume, red and white.

North Somerset.—Uniform, blue. Facings and Plume, white.

West Somerset.—Uniform, blue. Facings, scarlet. Busby-bag, red. Plume, white.

Staffordshire (Queen's Own Royal Regiment).—Uniform, blue. Facings and Busby-bag, scarlet. Plume, white.

Suffolk (The Duke of York's Own Loyal Suffolk Hussars).—Uniform, green. Facings and Busby-bag, scarlet. Plume, white.

Surrey (Queen Mary's Regiment).—Uniform, blue. Facings, blue.

Sussex.—Uniform, blue. Facings, yellow.

Warwickshire.—Uniform, dark blue. Facings, Busby-bag and Plume, white.

Westmorland and Cumberland.—Uniform, scarlet. Facings, white. Busby-bag, scarlet. Plume, red and white.

Royal Wiltshire (Prince of Wales's Own Regiment).—Uniform, blue. Facings, scarlet.

Worcestershire (The Queen's Own Worcestershire Hussars).—Uniform, blue. Facings, Busby-bag and Plume, scarlet.

Yorkshire Dragoons (Queen's Own).—Uniform, blue. Facings and Plume, white.

Yorkshire Hussars (Alexandra, Princess of Wales's Own).—Uniform, blue. Busby-bag, scarlet. Plume, black and scarlet.

East Riding of Yorkshire.—Uniform, maroon. Facings, light blue. Plume, light blue and white.

Artillery and Engineers

Royal Regiment of Artillery.—Uniform, blue. Facings, scarlet. Busby-bag, scarlet. Plume, white.

Royal Malta Artillery.—Uniform, blue. Facings, scarlet.

Corps of Royal Engineers.—Uniform, scarlet. Facings, blue.

Foot Guards

Grenadier Guards.—Uniform, scarlet. Facings, blue.
Coldstream Guards.—Uniform, scarlet. Facings, blue.
Scots Guards.—Uniform, scarlet. Facings, blue.
Irish Guards.—Uniforms, scarlet. Facings, blue.

Infantry

The Royal Scots (Lothian Regiment)—(1st Foot).—Uniform, scarlet. Facings, blue. The 4th and 5th battalions are known as the Queen's Edinburgh Rifles.

The Queen's (Royal West Surrey Regiment)—(2nd Foot).—Uniform, scarlet. Facings, blue.

The Buffs (East Kent Regiment)—(3rd Foot).—Uniform, scarlet. Facings, buff. The 5th battalion is known as the "Weald of Kent" battalion.

The King's Own (Royal Lancaster Regiment)—(4th Foot).—Uniform, scarlet. Facings, blue.

The Northumberland Fusiliers—(5th Foot).—Uniform, scarlet. Facings, gosling green.

The Royal Warwickshire Regiment (6th Foot).—Uniform, scarlet. Facings, blue.

The Royal Fusiliers (City of London Regiment)—(7th Foot).—Uniform, scarlet. Facings, blue.

The King's (Liverpool Regiment)—(8th Foot).—Uniform, scarlet. Facings, blue.

The Norfolk Regiment—(9th Foot).—Uniform, scarlet. Facings, yellow.

The Lincolnshire Regiment—(10th Foot).—Uniform, scarlet. Facings, white.

The Devonshire Regiment—(11th Foot).—Uniform, scarlet. Facings, lincoln green.

The Suffolk Regiment—(12th Foot).—Uniform, scarlet. Facings, yellow.

Prince Albert's (Somerset Light Infantry)—(13th Foot).—Uniform, scarlet. Facings, blue.

The Prince of Wales's Own (West Yorkshire Regiment)—(14th Foot).—Uniform, scarlet. Facings, buff.

The East Yorkshire Regiment—(15th Foot).—Uniform, scarlet. Facings, white. The 7th and 8th battalions are known as the "Leeds Rifles."

The Bedfordshire Regiment—(16th Foot).—Uniform, scarlet. Facings, white.

The Leicestershire Regiment—(17th Foot).—Uniform, scarlet. Facings, white.

The Royal Irish Regiment—(18th Foot).—Uniform, scarlet. Facings, blue.

Alexandra, Princess of Wales's Own (Yorkshire Regiment)—(19th Foot.) Uniform, scarlet. Facings, grass green.

The Lancashire Fusiliers—(20th Foot).—Uniform, scarlet. Facings, white.

The Royal Scots Fusiliers—(21st Foot).—Uniform, scarlet. Facings, blue.

The Cheshire Regiment—(22nd Foot).—Uniform, scarlet. Facings, buff.

The Royal Welsh Fusiliers—(23rd Foot).—Uniform, scarlet. Facings, blue. The 4th is the Flintshire battalion; and the 5th the Denbighshire.

The South Wales Borderers—(24th Foot).—Uniform, scarlet. Facings, grass green. The 7th is the Merioneth and Montgomery battalion.

The King's Own Scottish Borderers—(25th Foot).—Uniform, scarlet. Facings, blue.

The Cameronians (Scottish Rifles)—(26th and 90th Foot).—Uniform, green. Facings, dark green.

The Royal Inniskilling Fusiliers—(27th and 108th Foot).—Uniform, scarlet. Facings, blue.

The Gloucestershire Regiment—(28th and 61st Foot).—Uniform, scarlet. Facings, white.

The Worcestershire Regiment—(29th and 36th Foot).—Uniform, scarlet. Facings, white.

The East Lancashire Regiment—(30th and 59th Foot).—Uniform, scarlet. Facings, white.

The East Surrey Regiment—(31st and 70th Foot).—Uniform, scarlet. Facings, white.

The Duke of Cornwall's Light Infantry—(32nd and 46th Foot).—Uniform, scarlet. Facings, white.

The Duke of Wellington's (West Riding Regiment)—(33rd and 76th Foot).—Uniform, scarlet. Facings, scarlet.

The Border Regiment—(34th and 55th Foot).—Uniform, scarlet. Facings, yellow.

The Royal Sussex Regiment—(35th and 107th Foot).—Uniform, scarlet. Facings, blue.

The Hampshire Regiment—(37th and 67th Foot).—Uniform, scarlet. Facings, yellow.

The South Staffordshire Regiment—(38th and 80th Foot).—Uniform, scarlet. Facings, white.

The Dorsetshire Regiment—(39th and 54th Foot).—Uniform, scarlet. Facings, grass green.

The Prince of Wales's Volunteers (South Lancashire Regiment)—(40th and 87th Foot).—Uniform, scarlet. Facings, white.

The Welsh Regiment—(41st and 69th Foot).—Uniform, scarlet. Facings, white.

The Black Watch (Royal Highlanders)—(42nd and 73rd Foot).—Uniform, scarlet. Facings, blue.

The Oxfordshire and Buckinghamshire Light Infantry—(43rd and 52nd Foot).—Uniform, scarlet. Facings, white.

The Essex Regiment—(44th and 56th Foot).—Uniform, scarlet. Facings, white.

The Sherwood Foresters (Nottinghamshire and Derbyshire Regiment)—(45th and 95th Foot).—Uniform, scarlet. Facings, Lincoln green.

The Loyal North Lancashire Regiment—(47th and 91st Foot).—Uniform, scarlet. Facings, white.

The Northamptonshire Regiment—(48th and 58th Foot).—Uniform, scarlet. Facings, white.

Princess Charlotte of Wales's (Royal Berkshire Regiment)—(49th and 66th Foot).—Uniform, scarlet. Facings, blue.

The Queen's Own (Royal West Kent Regiment)—(50th and 97th Foot).—Uniform, scarlet. Facings, blue.

The King's Own (Yorkshire Light Infantry)—(51st and 105th Foot).—Uniform, scarlet. Facings, blue.

The King's (Shropshire Light Infantry)—(53rd and 85th Foot).—Uniform, scarlet. Facings, blue.

The Duke of Cambridge's Own (Middlesex Regiment)—(57th and 77th Foot).—Uniform, scarlet. Facings, lemon yellow.

The King's Royal Rifle Corps—(60th Foot).—Uniform, green. Facings, scarlet.

The Duke of Edinburgh's (Wiltshire Regiment)—(62nd and 99th Foot).—Uniform, scarlet. Facings, buff.

The Manchester Regiment—(63rd and 96th Foot).—Uniform, scarlet Facings, white.

The Prince of Wales's (North Staffordshire Regiment)—(67th and 98th Foot).—Uniform, scarlet. Facings, white.

The York and Lancaster Regiment—(65th and 84th Foot).—Uniform. scarlet. Facings, white.

The Durham Light Infantry—(68th and 106th Foot).—Uniform, scarlet. Facings, dark green.

The Highland Light Infantry—(71st and 74th Foot).—Uniform, scarlet. Facings, buff.

Seaforth Highlanders (Ross-shire Buffs The Duke of Albany's)—(72nd and 78th Foot).—Uniform, scarlet. Facings, buff.

The Gordon Highlanders—(75th and 92nd Foot).—Uniform, scarlet. Facings, yellow.

The Queen's Own Cameron Highlanders—(79th Foot).—Uniform, scarlet, Facings, blue.

The Royal Irish Rifles—(83rd and 86th Foot).—Uniform, green. Facings. dark green.

Princess Victoria's (Royal Irish Fusiliers)—(87th and 89th Foot).—Uniform, scarlet. Facings, blue.

The Connaught Rangers—(88th and 94th Foot).—Uniform, scarlet. Facings, green.

Princess Louise's (Argyll and Sutherland Highlanders)—(91st and 93rd Foot).—Uniform, scarlet. Facings, yellow.

The Prince of Wales's Leinster Regiment (Royal Canadians)—(100th and 109th Foot).—Uniform, scarlet. Facings, blue.

The Royal Munster Fusiliers—(101st and 104th Foot).—Uniform, scarlet. Facings, blue.

The Royal Dublin Fusiliers—(102nd and 103rd Foot).—Uniform, scarlet. Facings, blue.

The Rifle Brigade (The Prince Consort's Own).—Uniform, green. Facings, black.

The Indian Army

The British troops stationed in India at the commencement of the war consisted of :

9 Cavalry Regiments.

11 Batteries R.H.A.	33 Companies R.G.A.
45 ,, R.F.A.	52 Battalions Infantry.

There were also 39 Native Cavalry Regiments and 140 Native Infantry Regiments. The total of H.M. Forces in India was, approximately :

British Regular Forces	75,800	Imperial Service Troops	21,000
Indian Regular Forces	162,000	Local Corps	5,000
Volunteers	35,400	Military Police ..	28,500
Indian Army Reserves	25,000		352,700

CAVALRY

Governor - General's Body - Guard.
1st Duke of York's Own Lancers (Skinner's Horse). Late 1st Bengal Lancers.
2nd Lancers (Gardner's Horse). Late 2nd Bengal Lancers.
3rd Skinner's Horse. Late 3rd Bengal Cavalry (Skinner's Horse).
4th Cavalry. Late 4th Bengal Lancers.
5th Cavalry. Late 5th Bengal Cavalry.
6th King Edward's Own Cavalry. Late 6th Prince of Wales's Bengal Cavalry.
7th Hariana Lancers. Late 7th Bengal Lancers.
8th Cavalry. Late 8th Bengal Lancers.
9th Hodson's Horse. Late 9th Bengal Lancers.
10th Duke of Cambridge's Own Lancers (Hodson's Horse). Late 10th Bengal (Duke of Cambridge's Own) Lancers.
11th King Edward's Own Lancers (Probyn's Horse). Late 11th Prince of Wales's Own Bengal Lancers.
12th Cavalry. Late 12th Bengal Cavalry.
13th Duke of Connaught's Lancers (Watson's Horse). Late 13th Duke of Connaught's Bengal Lancers.
14th Murray's Jat Lancers. Late 14th Bengal Lancers (Murray's Jat Horse).
15th Lancers (Cureton's Multanis). Late 15th (Cureton's Multani) Bengal Lancers.
16th Cavalry. Late 16th Bengal Lancers.
17th Cavalry. Late 17th Bengal Lancers.
18th King George's Own Lancers. Late 18th Bengal Lancers.
19th Lancers (Fane's Horse). Late 19th Bengal Lancers (Fane's Horse).
20th Deccan Horse. 1st Lancers, Hyderabad Contingent.
21st Prince Albert Victor's Own Cavalry (Frontier Force) (Daly's Horse). Late 1st Punjab Cavalry. Prince Albert Victor's Own.
22nd Sam Browne's Cavalry (Frontier Force). Late 2nd Punjab Cavalry.
23rd Cavalry (Frontier Force). Late 3rd Punjab Cavalry.
25th Cavalry (Frontier Force). Late 5th Punjab Cavalry.
26th King George's Own Light Cavalry. Late 1st Madras Lancers.
27th Light Cavalry. Late 2nd Madras Lancers.
28th Light Cavalry. Late 3rd Madras Lancers.
29th Lancers (Deccan Horse). Late 2nd Lancers.
30th Lancers (Gordon's Horse). Late 4th Lancers. Hyderabad Contingent.
31st Duke of Connaught's Own Lancers. Late 1st (Duke of Connaught's Own) Bombay Lancers.
32nd Lancers. Late 2nd Bombay Lancers.
33rd Queen Victoria's Own Light Cavalry. Late 3rd Queen's Own Bombay Light Cavalry.
34th Prince Albert Victor's Own Poona Horse. Late 4th (Prince Albert Victor's Own Bombay Cavalry (Poona Horse).
35th Scinde Horse. Late 5th Bombay Cavalry (Scinde Horse).
36th Jacob's Horse. Late 6th Bombay Cavalry (Jacob's Horse)
37th Lancers (Baluch Horse). Late 7th Bombay Lancers (Baluch Horse).
38th King George's Own Central India Horse. Late 1st Central India Horse.
39th King George's Own Central India Horse. Late 2nd Central India Horse.
Aden Troop. (Khor Maksar.)
Queen Victoria's Own Corps of Guides (Frontier Force) (Lumsden's). Late Queen's Own Corps of Guides. Punjab Frontier Force. (Cavalry and Infantry.)

MOUNTAIN BATTERIES

21st Kohat Mountain Battery (Frontier Force). Late No. 1(Kohat) Mountain Battery, Punjab Frontier Force.
22nd Derajat Mountain Battery (Frontier Force). Late No. 2 (Derajat) Mountain Battery, Punjab Frontier Force.
23rd Peshawar Mountain Battery (Frontier Force). Late No. 3 (Peshawar) Mountain Battery, Punjab Frontier Force.
24th Hazara Mountain Battery (Frontier Force). Late No. 4 (Hazara) Mountain Battery, Punjab Frontier Force.
25th Mountain Battery. Late No. 5 (Bombay) Mountain Battery.
26th Jacob's Mountain Battery. Late No.6 (Bombay) Mountain Battery.
27th Mountain Battery. Late No. 7 (Bengal) Mountain Battery.
28th Mountain Battery. Late No.8 (Bengal) Mountain Bat.
29th Mountain Battery. Late No. 9 (Native) Mountain Battery.
30th Mountain Battery. Late No. 10 (Native) Mountain Battery.
31st Mountain Battery.
32nd Mountain Battery.
The Frontier Garrison Artillery. Late No. 5 Garrison Battery Punjab Frontier Force.

SAPPERS AND MINERS

1st King George's Own Sappers and Miners. Late Bengal Sappers and Miners.

2nd Queen Victoria's Own Sappers and Miners. Late Queen's Own Corps of Madras Sappers and Miners.

3rd Sappers and Miners. Late Corps of Bombay Sappers and Miners.

No. 25 (Railway) Company. Late 1st Military Company.

No. 26 (Railway) Company. Late 2nd Military Railway Company.

No. 31 (Divisional Signal) Company.

No. 32 (Divisional Signal) Company.

No. 33 (Divisional Signal) Company.

No. 34 (Divisional Signal) Company.

No. 41 (Wireless Signal) Company.

INFANTRY

1st Brahmans. Late 1st Bengal Infantry.

2nd Queen Victoria's Own Rajput Light Infantry. Late 2nd (Queen's Own) Bengal (Light) Infantry.

3rd Brahmans. Late 3rd Bengal Infantry.

4th Prince Albert Victor's Rajputs. Late 4th Bengal Infantry.

5th Light Infantry. Late 5th Bengal (Light) Infantry.

6th Jat Light Infantry. Late 6th Bengal (Light) Infantry.

7th Duke of Connaught's Own Rajputs. Late 7th (Duke of Connaught's Own Rajput) Bengal Infantry.

8th Rajputs. Late 8th Bengal Infantry.

9th Bhopal Infantry. Late Bhopal Battalion.

10th Jats. Late 10th Bengal Infantry.

11th Rajputs. Late 11th Bengal Infantry.

12th Pioneers (The Khelat-i-Ghilzie Regiment). Late 12th (the Khelat-i-Ghilzie) Bengal Infantry.

13th Rajputs (The Shekhawati Regiment). Late 13th (Shekhawati Regiment) Bengal Infantry.

14th King George's Own Ferozepore Sikhs. Late 14th Bengal Infantry (The Ferozepore Sikhs).

15th Ludhiana Sikhs. Late 15th Bengal Infantry (The Ludhiana Sikhs).

16th Rajputs (The Lucknow Regiment). Late 16th (The Lucknow Regiment) Bengal Infantry.

17th Infantry (The Loyal Regiment). Late 17th (The Loyal Purbiah) Bengal Infantry.

18th Infantry. Late 18th Bengal Infantry.

19th Punjabis. Late 19th (Punjab) Bengal Infantry.

20th Duke of Cambridge's Own Infantry (Brownlow's Punjabis). Late 20th (The Duke of Cambridge's Own Punjab) Bengal Infantry.

21st Punjabis. Late 21st (Punjab) Bengal Infantry.

22nd Punjabis. Late 22nd (Punjab) Bengal Infantry.

23rd Sikh Pioneers. Late 23rd (Punjab) Bengal Infantry (Pioneers).

24th Punjabis. Late 24th (Punjab) Bengal Infantry.

25th Punjabis. Late 25th (Punjab) Bengal Infantry.

26th Punjabis. Late 26th (Punjab) Bengal Infantry.

27th Punjabis. Late 27th (Punjab) Bengal Infantry.

28th Punjabis. Late 28th (Punjab) Bengal Infantry.

29th Punjabis. Late 29th (Punjab) Bengal Infantry.

30th Punjabis. Late 30th (Punjab) Bengal Infantry.

31st Punjabis. Late 31st (Punjab) Bengal Infantry.

32nd Sikh Pioneers. Late 32nd (Punjab) Bengal Pioneers.

33rd Punjabis. Late 33rd (Punjab) Bengal Infantry.

34th Sikh Pioneers. Late 34th (Punjab) Bengal (Pioneers).

35th Sikhs. Late 35th (Sikh) Bengal Infantry.

36th Sikhs. Late 36th (Sikh) Bengal Infantry.

37th Dogras. Late 37th (Dogra) Bengal Infantry.

38th Dogras. Late 38th (Dogra) Bengal Infantry.

39th Garhwal Rifles. Late 39th (The Garhwali) Bengal Infantry. 2nd Battalion, late 49th (Garhwal) Rifle Bengal Infantry.

40th Pathans. Late 40th (Pathan) Bengal Infantry.

41st Dogras. Late 41st (Dogra) Bengal Infantry.

42nd Deoli Regiment. Late Infantry of the Deoli Irregular Force. (Cavalry and Infantry.)

43rd Erinpura Regiment. Late Infantry of the Erinpura Irregular Force. (Cavalry and Infantry.)

44th Merwara Infantry. Late Mhwairwara Battalion.

45th Rattray's Sikhs. Late 45th (Rattray's Sikhs). Bengal Infantry.

46th Punjabis. Late 46th (Punjab) Bengal Infantry.

47th Sikhs. Late 47th (Sikh) Bengal Infantry.

48th Pioneers. Late 48th Bengal Infantry (Pioneers).

51st Sikhs (Frontier Force). Late 1st Sikh Infantry.

52nd Sikhs (Frontier Force). Late 2nd (or Hill) Sikh Infantry.

53rd Sikhs (Frontier Force). Late 3rd Sikh Infantry.

54th Sikhs (Frontier Force). Late 4th Sikh Infantry.

55th Coke's Rifles (Frontier Force). Late 1st Punjab Infantry.

56th Punjabi Rifles (Frontier Force). Late 2nd Punjab Infantry.

57th Wilde's Rifles (Frontier Force). Late 4th Punjab Infantry.

58th Vaughan's Rifles (Frontier Force). Late 5th Punjab Infantry.

59th Scinde Rifles (Frontier Force). Late 6th Punjab Infantry.

61st King George's Own Pioneers. Late 1st Madras Infantry (Pioneers).

62nd Punjabis. Late 2nd Madras Infantry.

63rd Palamcottah Light Infantry. Late 3rd (or Palamcottah) Madras (Light) Infantry.

64th Pioneers. Late 4th Madras Infantry (Pioneers).

66th Punjabis. Late 6th Madras Infantry.

67th Punjabis. Late 7th Madras Infantry.

69th Punjabis. Late 9th Madras Infantry.

72nd Punjabis. Late 12th (2nd Burma Bn.) Madras Infantry.

73rd Carnatic Infantry. Late 13th Madras Infantry.

74th Punjabis. Late 14th Madras Infantry.

75th Canratic Infantry. Late 15th Madras Infantry.

76th Punjabis. Late 16th Madras Infantry.

79th Carnatic Infantry. Late 19th Madras Infantry.

80th Carnatic Infantry. Late 20th Madras Infantry.

81st Pioneers. Late 21st Madras Infantry (Pioneers).

82nd Punjabis. Late 22nd Madras Infantry.

83rd Wallajahbad Light Infantry. Late 23rd (Wallajahbad) Madras Light Infantry.

84th Punjabis. Late 24th Madras Infantry.

86th Carnatic Infantry. Late 26th Madras Infantry.

87th Punjabis. Late 27th Madras Infantry.

88th Carnatic Infantry. Late 28th Madras Infantry.

89th Punjabis. Late 29th (7th Burma Bn.) Madras Infantry.

90th Punjabis. Late 30th (5th Burma Bn.) Madras Infantry.

91st Punjabis. (Light Infantry). Late 31st (6th Burma Bn.) Madras (Light) Infantry.

INFANTRY—*continued*

92nd Punjabis. Late 32nd (4th Burma Bn.) Madras Infantry.
93rd Burma Infantry. Late 33rd (3rd Burma Bn.) Madras Infantry.
94th Russell's Infantry. Late 1st Infantry, Hyderabad Contingent.
95th Russell's Infantry. Late 2nd Infantry, Hyderabad Contingent.
96th Berar Infantry. Late 3rd Infantry. Hyderabad Contingent.
97th Deccan Infantry. Late 4th Infantry, Hyderabad Contingent.
98th Infantry. Late 5th Infantry. Hyderabad Contingent.
99th Deccan Infantry. Late 6th Infantry, Hyderabad Contingent.
101st Grenadiers. Late 1st Bombay Infantry (Grenadiers).
102nd King Edward's Own Grenadiers. Late 2nd (Prince of Wales's Own) Bombay Infantry (Grenadiers).
103rd Mahratta Light Infantry. Late 3rd Bombay Light Infantry.
104th Wellesley's Rifles. Late 4th Bombay Infantry or Rifle Corps.
105th Mahratta Light Infantry. Late 5th Bombay (Light) Infantry.
106th Hazara Pioneers.
107th Pioneers. Late 7th Bombay Infantry (Pioneers).
108th Infantry. Late 8th Bombay Infantry.
109th Infantry. Late 9th Bombay Infantry.
110th Mahratta Light Infantry. Late 10th Bombay (Light) Infantry.
112th Infantry. Late 12th Bombay Infantry.
113th Infantry. Late 13th Bombay Infantry.
114th Mahrattas. Late 14th Bombay Infantry.
116th Mahrattas. Late 16th Bombay Infantry.
117th Mahrattas. Late 17th Bombay Infantry.
119th Infantry (The Mooltan Regiment). Late 19th Bombay Infantry.
120th Rajputana Infantry. Late 20th Bombay Infantry.
121st Pioneers. Late 21st Bombay Infantry. (The Marine Battalion.)
122nd Rajputana Infantry. Late 22nd Bombay Infantry.
123rd Outram's Rifles. Late 23rd Bombay (Light) Infantry.
124th Duchess of Connaught's Own Baluchistan Infantry. Late 24th (Baluchistan) Bombay Infantry.
125th Napier's Rifles. Late 25th (3rd Bn. Rifle Regiment) Bombay Infantry.
126th Baluchistan Infantry. Late 26th (Baluchistan) Bombay Infantry.
127th Queen Mary's Own Baluch Light Infantry. Late 27th Bombay (Light) Infantry. (1st Baluch Battalion.)
128th Pioneers. Late 28th (Pioneer) Bombay Infantry.
129th Duke of Connaught's Own Baluchis. Late 29th (Duke of Connaught's Own) Bombay Infantry (The 2nd Baluch Battalion).
130th King George's Own Baluchis. (Jacob's Rifles). Late 30th Bombay Infantry (3rd Baluch Battalion).
1st King George's Own Gurkha Rifles (The Malaun Regiment).
2nd King Edward's Own Gurkha Rifles (The Sirmoor Rifles).
3rd Queen Alexandra's Own Gurkha Rifles.
4th Gurkha Rifles.
5th Gurkha Rifles (Frontier Force).
6th Gurkha Rifles. Late 42nd Gurkha (Rifle) Bengal Infantry.
7th Gurkha Rifles. Late 8th Gurkha Rifles.
8th Gurkha Rifles. Late 44th Gurkha (Rifle) Bengal Infantry. 2nd Battalion, late 43rd Gurkha (Rifle) Bengal Infantry.
9th Gurkha Rifles. Late 9th Bengal Infantry.
10th Gurkha Rifles. Late 10th (1st Burma Bn.). Madras Infantry.

The Royal Flying Corps

The Royal Flying Corps (military wing), has headquarters at Farnborough, Hants, with substations at Montrose, Salisbury Plain, Portsmouth and Dover. The types of machines used are Blériot monoplanes, and the rest are biplanes built by A. V. Roe & Co., Ltd. (Avro), The Sopwith Aviation Co., Ltd., The Air-craft Manufacturing Co., Ltd. (Farmans), and Vickers, Ltd., the rest being of the B.E. and R.E. types, designed by the Royal Air-craft Factory and built by various firms of engineers. The R.F.C. is controlled by Brig.-Gen. Sir David Henderson K.C.B., D.S.O., Director of Military Aeronautics, the War Office. The Commandant is Brevet-Major (Temporary Lieut.-Col.) F. H. Sykes (15th Hussars), but this officer is by now on duty as a General Staff Officer, and the headquarters at Farnborough are now controlled by Major (Temporary Lieut.-Col.) Trenchard, C.B., D.S.O.

There are seven squadrons, each consisting of 12 aeroplanes, with 12 in reserve, and 24 pilots under a Squadron Commander with the rank of Major. Each squadron consists of 3 flights of 4 machines under a Flight Commander with the rank of Captain. Each squadron is a complete unit with travelling motor-workshops and motor lorries for the transport of temporary sheds, spare parts, tools and men.

CHAPTER XI

Types of the British Navy

THE British Navy at the time of the declaration of war consisted of 700 ships of all classes. Of these 29 were dreadnoughts, 40 battleships, 126 armoured and protected cruisers, 237 torpedo craft, 191 torpedo-boat destroyers, 64 submarines, and 13 miscellaneous, not counting colliers.

Dreadnoughts

Name.	Length (feet).	Beam (feet).	Tonnage.	Horse Power.	Speed (knots).	Complement.
Queen Elizabeth Class (5 ships)	620	92	27,500	28,000	25	900
Iron Duke Class (5 ships) ..	580	90	25,000	29,000	22·5	900
King George V. Class (5 ships)	555	89	23,600	31,000	21	900
Orion Class (4 ships)	545	88½	22,500	27,000	21	800
Colossus Class (3 ships)	510	86	20,000	25,000	21	800
St. Vincent Class (3 ships) ..	500	84	19,250	24,500	21	724
Bellerophon Class (4 ships) ..	490	82	18,600	23,000	21	870

Battleships

Name.	Length (feet).	Beam (feet).	Tonnage.	Horse Power.	Speed (knots).	Complement.
Lord Nelson Class (2 ships) ..	420	79	16,500	20,000	18	747
King Edward VII. Class (8 ships)	453	78	16,350	18,000	18	780
Swiftsure Class (2 ships) ..	450	71	11,800	12,500	20	700
Formidable Class (8 ships) ..	420	75	15,000	15,000	18	760
Duncan Class (5 ships)	425	75	14,000	18,000	19	750
Canopus Class (6 ships)	420	74	12,950	13,500	18	700
Majestic Class (9 ships)	412	75	14,900	12,000	17	750

Battle Cruisers

Name.	Length (feet).	Beam (feet).	Tonnage.	Horse Power.	Speed (knots).	Complement.
Queen Mary Class (2 ships) ..	670	88	27,000	78,700	31	1,000
Lion Class (2 ships)	660	88	26,350	70,000	31	980
Australian Class (2 ships) ..	567	82	{19,200 / 18,800}	44,000	26	780
Invincible Class (4 ships) ..	530	78·6	17,250	41,000	25	750
Minotaur Class (3 ships) ..	520	72	14,600	27,000	23	755
Duke of Edinburgh Class (6 ships)	480	73½	13,550	23,500	23	720

Cruisers

Devonshire Class (6 ships) ..	460	68½	11,000	21,000	22½	650
Monmouth Class (9 ships) ..	450	66	9,800	22,000	23	537
Drake Class (4 ships)	520	71	14,100	30,000	23	900
Cressy Class (6 ships)	470	69½	12,000	21,000	21	750
Terrible Class (1 ship)	520	71	14,400	25,000	22	840
Diadem Class (7 ships)	460	69	11,000	10,000	21	680
Edgar Class (9 ships)	360	60	7,350	12,000	19	550
Challenger Class (1 ship) ..	355	56	5,800	12,500	21	475
Highflyer Class (3 ships) ..	350	54	5,600	10,000	20	430
Arrogant Class (2 ships) ..	320	58	5,750	10,000	19	420
Talbot Class (9 ships)	370	54	5,600	9,600	19·5	440
Astræa Class (8 ships)	320	49½	4,360	9,000	19·5	320
Apollo Class (8 ships)	300	44	3,500	9,000	20	275
Sentinel Class (8 ships)	370	38	2,700	16,500	25	268
Topaze Class (4 ships)	360	40	3,000	9,800	23	300
Calliope Class (8 ships)	—	—	3,740	40,000	30	—
Arethusa Class (8 ships).. ..	410	39	3,600	30,000	30	280
Chatham Class (6 ships) ..	430	48½	5,400	26,500	25	380
Bristol Class (5 ships)	430	47	4,800	24,500	27	375
Weymouth Class (4 ships) ..	430	48½	5,250	23,500	25	380
Colonial (3 ships)	460	48½	5,400	25,000	25·5	350
Boadicea Class (7 ships) ..	385	41	3,440	20,000	26	320

Torpedo Boats

Class.	Tonnage.	H.P.	Speed (kts.)	Torpedo Tubes.
A (9)	275-350	4,500	27	2 × 18 in.
B (21)	300-400	6,000	30	2 × 18 ,,
C (35)	300-400	6,000	30	2 × 18 ,,
D (8)	300-400	6,000	30	2 × 18 ,,
E (34)	530-650	7,500	25	2 × 18 ,,
F (12)	865-1,050	15,500	33	2 × 18 ,,
G (16)	900-1,000	2,100	27	2 × 21 ,,
H (20)	720-750	13,000	27	2 × 21 ,,
I (23)	750-850	20,000	30	2 × 21 ,,
K (20)	928-1,100	28,000	32	4 × 21 ,,
L (20)	980-1,100	25,000	33	4 × 21 ,,
M (16)	1,200-1,350	27,000	34	4 × 21 ,,

Merchant Cruisers

The following is a list of vessels, mostly classed in the popular mind as "Atlantic Liners," which have been taken over by the Admiralty and converted into auxiliary cruisers. These are all vessels, the owners of which receive a substantial mail subsidy in times of peace :

Name.	Tonnage.	H.P.	Knots.	Name.	Tonnage.	H.P.	Knots.
Ascania	.. 9,110	4,600	—	**Ivernia**	..14,270	10,000	16
Alaunia	..13,400	7,500	14½	**Laconia**	..18,090	13,500	16
Andania	..13,400	7,500	14½	**Lusitania**	31,550	67,000	26
Aquitania	47,000	60,000	23	**Lycia**	 2,710	1,150	—
Ausonia	.. 7,900	4,400	—	**Mauretania**	31,930	67,000	26
Brescia	.. 3,230	1,800	—	**Pannonia**	9,850	4,500	—
Campania	12,950	30,000	22	**Pavia**	 2,940	1,800	—
Caria	 3,030	1,800	—	**Phrygia**	.. 3,350	1,600	—
Carmania	..19,520	21,000	18	**Saxonia**	..14,270	10,000	16
Caronia	..19,680	21,000	18	**Thracia**	.. 2,890	1,100	—
Carpathia	..13,600	8,000	15	**Tyria**	 2,930	1,800	—
Cypria	 2,940	1,800	16	**Ultonia**	..10,400	4,700	—
Franconia	18,140	13,500	16	**Veria**	 3,220	1 800	—

The Royal Naval Air Service

The Royal Naval Air Service is controlled by the Director of the Air Department at the Admiralty, Captain Murray F. Sueter, C.B. It has its headquarters at the Central Air Office, Sheerness, under Captain Scarlett, R.N. It has stations at Calshot, Isle of Grain, Felixstowe, Yarmouth and Dundee. The Navy's seaplanes are built by Short Bros., The Sopwith Aviation Co., J. Samuel White & Co., and A. V. Roe & Co. There are also some French built Farman seaplanes. Among the land machines used by the Navy are samples of almost every British and French aeroplane, the Navy believing in experimenting with every type before standardizing.

Each Naval Air Station is under a Squadron Commander with the rank of Lieut.-Commander, R.N., who has under him an indeterminate number of Flight Commanders ranking as 4-year Lieuts., R.N., and Flight Lieutenants ranking as Lieuts., R.N.

CHAPTER XII

The German Army

THE Army of the German Empire is a most elaborate organization, of which the Emperor William is denoted as General-in-Chief. Under him is an Imperial Military Staff and a Military Cabinet, a considerable number of Aides-de-Camp and Generals, and other Officers attached to His Majesty's suite.

In the Army proper the command is centred in Field-Marshals-General, of whom Prince Albert of Prussia is nominally head. There is a Quartermaster-General and his staff with heads of sections, eight in all, covering the various parts of the Empire. There is also a surveying and map making staff, charged with the collection of information relating to topography of countries through which the German Army is likely to march. There is also a commandant superintendent of military marching.

An elaborate system of army inspection is in force. There is an Inspector-General for the 1st, 2nd, 9th, 10th, and 17th Army Corps, which centres in Berlin, and other Inspectors for Army Corps for the Kingdoms or States of Saxony, Hanover, Bavaria and Carlsruhe.

The system is divided into nineteen Army Corps, mostly associated with territorial districts, as follows :—

Corps	District	Headquarters
I.	East Prussia	Koenigsberg
II.	Pomerania	Stettin
III.	Brandeburg	Berlin
IV.	Saxony	Magdeburg
V.	Posen and Liegnitz	Posen
VI.	Breslau and Oppeln	Breslau
VII.	Westphalia	Munster
VIII.	Prussian Rhineland	Coblence
IX.	Schleswig-Holstein	Altona
X.	Hanover	Hanover
XI.	Cassel	Cassel
XII.	Bautzen	Dresden

XIII.	Wurtemburg	Stuttgart
XIV.	Baden and Upper Alsace	Carlsruhe
XV.	Lower Alsace	Strasburg
XVI.	Lorraine	Metz
XVII.	Western Prussia	Dantzig
XVIII.	Wiesbaden and Hesse	Frankfort
XIX.	Saxony II	Chemnitz

The Bavarian Army is a separate organization. As readers will remember, it was mobilized by a declaration on the authority of the King of Bavaria. It consists of three Army Corps, the headquarters of which are at Munich, Wurtzburg, and Nuremberg.

In the German War Office there are separate departments devoted to organization of cavalry, the principal headquarters of which are at Koenigsberg, Stettin, Munster, and Sarrebruck.

Specialization in the German Army is carried out to an extreme degree. There are organizations in charge of the pitching of camps, the method of foot marching, defence of fortresses, general military engineering, light cavalry, heavy cavalry, railway works, and even a special corps of undertakers, members of which accompany the Army in the field. In a German Army Corps there are 40,000 men (26,200 combattants), 14,000 horses, 126 guns, and 2,400 vehicles.

Germany has about nineteen classifications of air-ships, both rigid and non-rigid. The rigid air-ship varies in displacement from 17½ to 30 tons; in horse-power from 450 to 720; in cruising or endurance capacity at full speed, from 10 to 30 hours; and in nominal speed from 10 to 30 miles an hour. The non-rigid air-ships are all of less capacity. The usual stations of the German air-fleet are Hamburg, Dresden, Leipzig, Koenigsberg, Metz, Cologne, Friedrichshaven, Trèves, Posen and Potsdam.

The majority of German aeroplanes are built by the Albatross, Aviatik, L.V.G., Rumpler, Ago and D.F.W. firms. Nearly all are tractor biplanes, except for a certain number of monoplanes of the "Etrich" type, in which the tips of the wings sweep backwards and upwards, hence their name—"taube" or pigeon.

CHAPTER XIII

The German Navy

THE organization of the German Navy is, on paper, as thorough as that of the German Army. The Admiral-in-Chief is the Emperor William II. and under him there is a cabinet of naval affairs with chiefs of sections and a General of the service department. Admiral Von Ingewohl is Commander-in-Chief.

There is an Inspector-General of naval affairs, whose headquarters are at Kiel, which is the principal naval station in the Baltic Sea. Sub-divisions are branches which deal with the Staff of the men-of-war, the crews, and many subsidiary departments of a well-organized Navy.

The principal German Naval Station of the North Sea is Wilhelmshaven, with a similar organization to that of Kiel. There are also naval bases at :—

Cuxhaven	Friedrichsort
Geestemunde	Heligoland

The German Navy is divided into squadrons, the first squadron being nominally in charge of Prince Henry of Prussia, who holds the rank of Vice-Admiral and Chief of the Staff. Supporting the squadrons of Dreadnoughts are squadrons of Cruisers.

Full details of the ships of the German Navy cannot naturally be given on account of the official secrecy that has been observed during the past few years. It is known, however, that the German Navy comprises at least 313 ships of all classes, the principal classification being :

Dreadnoughts	20	Destroyers	123
Battleships	13	Submarines	23
Crusiers (armoured and protected)	50	Miscellaneous	4
Torpedo craft	80	Total	313

Types of the German Navy

Battleships

Braunschweig (1904).—12,990 tons. Length, 398 ft. Beam, 73½ ft. Draught, 24½ ft. I.H.P., 16,000. Speed, 18 knots. Armament: Four 11 in., 14 6·7 in., 18 3·4 in., four machine guns, six torpedo tubes. Crew, 660.

Deutschland (1906).—13,040 tons. Length, 399 ft. Beam, 73 ft. Draught 24½ ft. I.H.P., 16,939. Speed, 18·5 knots. Armament: Four 11 in., 14 6·7 in., 22 3·4 in., four 1·4 in., four machine guns, six torpedo tubes. Crew, 730.

Kaiser (1912).—24,300 tons. Length, 564 ft. Beam, 95 ft. Draught, 27½ ft. I.H.P., 28,000. Speed, 21 knots. Armament: Ten 12 in., 14 5·9 in., 12 3·4 in., five torpedo tubes. Crew, 1,070.

Heligoland (1911).—22,500 tons. Length, 546 ft. Beam, 93 ft. Draught, 26½ ft. I.H.P., 28,000. Speed, 20·5 knots. Armament: Twelve 12 in., 14 5·9 in., 14 3·4 in., four light guns, six torpedo tubes. Crew, 1,106.

Nassau (1909).—18,600 tons. Length, 452 ft. Beam, 89 ft. Draught, 26½ ft. I.H.P., 25,800. Speed, 20·6 knots. Armament: Twelve 11 in., 12 5·9 in., 16 3·4 in., four light guns, six torpedo tubes. Crew, 960.

Wittelsbach (1900).—11,600 tons. Length, 394 ft. Beam, 68 ft. Draught, 25 ft. I.H.P., 14,000. Speed, 18 knots. Armament: Four 9·4 in., 18 5·9 in., 12 3·4 in., 12 1·4 in., eight machine guns, six torpedo tubes. Crew, 710.

Battle Cruisers

Moltke (1911).—22,600 tons. Length, 610 ft. Beam, 96 ft. Draught, 27 ft. I.H.P., 86,900. Speed, 28·4 knots. Armament: Ten 11 in., 12 5·9 in., 12 3·4 in., four torpedo tubes. Crew, 1,015.

Seydlitz (1913).—24,600 tons. Length, 656 ft. Beam, 93½ ft. Draught, 27 ft. I.H.P., 65,000. Speed, 26 knots. Armament: Ten 11 in., 12 5·9 in., 12 3·4 in., four torpedo tubes. Crew, 1,110.

Von der Tann (1911).—18,700 tons. Length, 561 ft. Beam, 87 ft. Draught, 26½ ft. I.H.P., 71,500. Speed, 27·6 knots. Armament: Eight 11 in., 10 5·9 in., 16 3·4 in., four torpedo tubes. Crew, 910.

Armoured Cruisers

Blücher (1910).—15,500 tons. Length 500 ft. Beam, 80 ft. Draught, 26·2 ft. I.H.P., 40,000. Speed, 25·3 knots. Armament: Twelve 8·2 in., eight 5·9 in., 16 3·4 in., four torpedo tubes. Crew, 888.

Prinz Heinrich (1902).—8,759 tons. Length, 396 ft. Beam, 25 ft. I.H.P., 15,000. Speed, 20 knots. Armament: Two 9·4 in., 10 5·9 in., 10 3·4 in., 10 1·4 in., four machine guns, four torpedo tubes. Crew, 525.

Roon (1905).—9,350 tons. Length, 403 ft. Beam, 65½ ft. Draught, 24 ft. I.H.P., 20,600. Speed, 21 knots. Armament; Four 8·2 in., 10 5·9 in., 16 3·4 in., 10 1·4 in., four machine guns, four torpedo tubes. Crew, 616.

Scharnhorst (1908).—11,400 tons. Length, 450 ft. Beam, 71 ft. Draught, 24½ ft. I.H.P., 27,700. Speed, 22·5 knots. Armament: Eight 8·2 in., six 5·9 in., 30 3·4 in., 14 smaller, four torpedo tubes. Crew, 764.

Third-class Cruisers

Breslau (1912).—4,500 tons. Length, 446 ft. Beam, 44½ ft. Draught, 16½ ft. I.H.P., 33,400. Speed, 27·5 knots. Armament: Twelve 4·1 in., two machine guns, two torpedo tubes. Crew, 373.

Danzig (1907).—3,200 tons. Length, 341 ft. Beam, 43¼ ft. Draught, 16½ ft. I.H.P., 10,000. Speed, 23 knots. Armament: Ten 4·1 in., 14 machine guns, two torpedo tubes. Crew, 286.

Dresden (1908).—3,544 tons. Length, 364 ft. Beam, 44 ft. I.H.P., 15,000. Speed, 27 knots. Armament: Twelve 4·1 in., four 2·1 in., four machine guns, two torpedo tubes. Crew, 361.

Kolberg (1910).—4,232 tons. Length, 388 ft. Beam, 46 ft. Draught, 16½ ft. I.H.P., 20,000. Speed, 25 knots. Armament: Twelve 4·1 in., four 2·1 in., four machine guns, two torpedo tubes. Crew, 360.

Koenigsberg (1907).—3,350 tons. Length, 354 ft. Beam, 43½ ft. Draught 16 ft. I.H.P., 13,200. Speed, 23·5 knots. Armament: Ten 4·1 in. eight 2·1 in., four machine guns, two torpedo tubes. Crew, 295.

Leipsig (1906).—3,200 tons. Length, 341 ft. Beam, 43¼ ft. Draught, 16½ ft. I.H.P., 11,000. Speed, 23 knots. Armament: Ten 4·1 in., 14 machine guns, two torpedo tubes. Crew, 286.

Stettin (1907).—3,396 tons. Length, 354½ ft. Beam, 43¼ ft. Draught, 15¾ ft. I.H.P., 13,200. Speed, 23·5 knots. Armament: Ten 4·1 in., eight 2·1 in., four machine guns, two torpedo tubes. Crew, 322.

Second-class Cruisers

Freya (1898).—5,569 tons. Length, 344½ ft. Beam, 57 ft. Draught, 20¾ ft. I.H.P., 10,000. Speed, 19·5 knots. Armament: Two 8·2 in., six 5·9 in., 14 3·4 in., four machine guns, three torpedo tubes. Crew, 465.

Hertha (1898).—5,569 tons. Length, 344½ ft. Beam, 57 ft. Draught, 21¾ ft. I.H.P., 10,000. Speed, 19·5 knots. Armament: Two 8·2 in., six 5·9 in., 14 3·4 in., four machine guns, three torpedo tubes.

Kaiserin Augusta (1896).—5,950 tons. Length, 387 ft. Beam, 52½ ft. Draught, 23 ft. I.H.P., 14,000. Speed, 21 knots. Armament: Twelve 5·9 in., eight 3·4 in., four machine guns, three torpedo tubes. Crew, 439.

Mine Layers, etc.

Albatross (1907).—2,100 tons. Length, 305 ft. Beam, 39 ft. Draught, 13 ft. I.H.P., 6,400. Speed, 20 knots. Armament: Eight 3·4 in. Crew, 201.

Pelikan (1890).—2,323 tons. Length, 259 ft. Beam, 39·4 ft. Draught, 14·7 ft. I.H.P., 2,959. Speed, 15 knots. Armament: Four 3·4 in., four machine guns.

Hela.—Mineship (1895). 2,000 tons. Length, 328 ft. Beam, 36 ft. Draught, 14¾ ft. Speed, 20·5 knots. I.H.P., 5,900. Armament: Four 3·4 in., six 4-pdr., two machine guns, three torpedo tubes. Crew, 187.

Vulkan.—Submarine salvage ship. (1907.) Length, 229 ft. Beam, 75 ft. Speed, 11 knots.

CHAPTER XIV

The French, Russian and Austrian Armies

The French Army

THE organization of the French Army is in the hands of the French War Office, which during the past two years has worked in the closest possible touch with the British War Office. The executive is in the hands of Generals commanding army corps, the known disposition of which at the opening of the war was as follows :—

Corps	District	Headquarters	Corps	District	Headquarters
1	Northern	.. Lille	11	Finistère	.. Nantes
2	Aisne ..	.. Amiens	12	Charente	.. Limoges
3	Eure ..	.. Rouen	13	Allier ..	.. Clermont-Ferrand
4	Eure and Loire	.. Le Mans	14	Hautes-Alpes	.. Lyons
5	Loiret ..	.. Orleans	15	Basses-Alpes	.. Marseilles
6	Ardennes	.. Rheims	16	Aude ..	.. Montpellier
7	Ain ..	.. Besançon	17	Ariège ..	.. Toulouse
8	Cher ..	.. Dijon	18	Charente-Inferieur	Bordeaux
9	Maine ..	.. Tours	19	Algeria ..	.. Algiers
10	Côtes-du-Nord	Baudot	20	Aube ..	.. Nancy

There is also an army division in occupation of Tunis, and an army corps specially organized for service in the French Colonies, with three depôts.

French Aeroplanes

The French aeroplane fleet consists chiefly of Farman biplanes and Blériot monoplanes. There are also a number of Morane, Nieuport, R.E.P. and Deperdussin monoplanes, and Voisin, Caudron, and Breguet biplanes.

The Russian Army

The Russian Army organization is elaborate and extensive, comprising some 7,000,000 men drawn

from millions of square miles of territory. The Commander-in-Chief of the Army is the Emperor Nicholas II., who has a large military suite of skilled advisers. There is also a General Staff, the members of which are responsible for the due organization of various sections and departments. There is a special department for the Conscription Service.

The disposition of the Russian military forces is by districts rather than corps. According to the latest available information the organization, on a war-footing, was as follows :—

District	Personnel	District	Personnel
Caucasus ..	.. 2 Army Corps	Odessa	.. 2 Army Corps
Finland ..	.. 2 Brigades	Petrograd	.. 2 Army Corps
Kazan ..	.. 7 Brigades	Siberia	.. 2 Brigades
Kiev ..	.. 3 Army Corps	Turkestan	.. 2 Army Corps
Kuantoung	.. 1 Brigade	Warsaw	.. 5 Army Corps
Moscow ..	.. 2 Army Corps	Vilna ..	.. 6 Army Corps

The headquarters of the 21 army corps of the Russian forces are :—

1	Petrograd	8	Odessa	15	Warsaw
2	Grodna	9	Kiev	16	Vitebsk
3	Vilna	10	Kharkov	17	Moscow
4	Minsk	11	Kovna	18	Dorpat
5	Warsaw	12	Vinniza	19	Brest-Litovsk
6	Warsaw	13	Smolensk	20	Riga
7	Simféropol	14	Lublin	21	Kiev

Russia has also a number of irregular corps of Cossack regiments with headquartes based on Amour, Astrakan, Caucasus, Kouban, Orenburg, Ossouri, Oural, Sémirïetchensk, Siberia, Térek, and Trans-baicalia.

Russian Aeroplanes

The Russian air fleet comprises French-built Farman biplanes, and Deperdussin and Blériot monoplanes, as well as Russian built aeroplanes of the same types.

The Austrian Army

The Austrian Army is under the nominal chief control of the Emperor Francis Joseph, who keeps in

touch with military affairs by means of a personal suite and staff of aides-de-camp. There is also a military cabinet, the members of which represent the different branches of the service.

Of the organizing staff proper there are Inspectors-General and Divisional Commanders-in-Chief to the number of fifteen in times of peace. The known disposition of the Austrian army corps is as follows:—

Corps	District	Headquarters	Corps	District	Headquarters
1	West Galicia ..	Cracovie	9	N.E. Bohemia ..	Josefstadt
2	Lower Austria ..	Vienna	10	Central Galicia	Przemysl
3	Styria & the Coast	Graz	11	East Galicia ..	Lemberg
4	Central Hungary	Buda Pest	12	Transylvania ..	Hermann-stadt
5	WesternHungary	Presburg			
6	N.E. Hungary	Kaschau	13	Croatia	Agram
7	East Hungary ..	Temesvár	14	Tyrol	Inspruck
8	S.W. Bohemia	Prague	15	Bosnia	Saraïewo

Belgian Aeroplanes

The Belgian Army had at the beginning of the war about 20 Farman biplanes and a few privately-owned Blériot monoplanes.

CHAPTER XV

Fortifications of the Nations — Forts, Naval Fortifications and Bases, and Dockyards

CONTINENTAL Europe has been made by centuries of war into a vast battlefield bristling with fortresses. They frown on every plain, guard every pass and dominate every harbour. They are equipped with the latest engines of defence, and must be reckoned with, for every army seeking vantage ground beyond its own sphere, every fleet approaching an enemy's coast, must first storm and besiege one or more strongholds.

The citadels involved in 1914's range of conflict guard all ways as far north as Riga, and as far south as Cattaro, on the Adriatic. These fortresses range in many lines, from Smolensk on the Dneiper, from Moscow to Liége and Namur, only a night's ride from Charing Cross, while the naval bases and the harbour fortresses dot every part of the world, from Plymouth to Malta, and from Malta to the Pacific Islands.

Here is presented a complete list of all the strongholds important in the war of 1914—the frontier forts, the fortifications guarding interior cities, fortified harbours, naval bases and dockyards. Many of these fortresses are built along similar lines. The description given of the strongholds of Strasburg and Metz in Germany, and of Belfort and Epinal in France, will give an idea of the resisting power of the many strategic points of Europe.

AUSTRIA

Austria has many natural defences on its frontiers, particularly the Carnic and High Alps towards Italy; the Dinaric Alps, the Unna and the Save towards Turkey; the Save and the Danube towards Servia; the Carpathians towards Rumania; the Dniester and the Vistula towards Russia.

Naval Bases and Fortresses

CATTARO, facing the Adriatic, is an ancient fortress with modern guns. It commands the remarkable zig-zag road cut in the steep mountain that leads to Mount Lovtchen, the lofty peak in Montenegro, which again commands Cetinjé, the Capital. The possession of this natural and lofty rampart (Mount Lovtchen) is of great importance, for it is the highest point in Montenegro. To understand the relative strength of Austria in the Adriatic it is necessary to

consider the mountain crowned with big guns, the fjord-like waterways affording passage or hiding to vessels, which are there invisible from the Adriatic. This fortress was shelled and reduced by a part of the French fleet in the fourth week of the war.

POLA, in Istria, fortified naval base and harbour, the chief station of the Austro-Hungarian fleet. Not open to commercial craft. The country's chief naval arsenal is placed here. Pola is at the head waters of the Gulf of Venice.

TRIESTE, at the head of the Adriatic, is a naval storehouse and arsenal.

Frontier and Interior Fortresses

ALPINE FRONTIERS, in Tyrol, all fortified.

CRACOW, in Galicia, once in Poland, now near the Austro-Russian frontier. Cracow is on the left bank of the Vistula. Commercial roads centre there. The fortress is very strong, like its companion sentinels along Austria's northern border.

FRONTIERS BETWEEN Tyrol and Adriatic, all fortified.

KOMÁROM, PÉTERVÁRAD, ORSOVA, three fortified points on the Danube.

LEMBERG, the capital of Galicia. This fortress was built by Casimir the Great, of Poland, in the 14th Century. In 1656 Lemberg successfully resisted the Russians. In 1671 it capitulated to the Turks; in 1704 it was stormed by the Swedes under Charles XII. Lemberg, Przemysl and Cracow guard the railways that pass through the Carpathians, themselves a fortress chain reaching across the northern boundary of Austria proper, from a point near Presburg, once the capital of Hungary, to the Iron Gate of the Danube.

PRZEMYSL, between Lemberg and Cracow.

SERAJEVO, is the capital of Bosnia, and is fortified. In this city Archduke Francis Ferdinand, heir to the Austrian throne, and his consort, the Duchess of Hohenberg, were assassinated.

TISZA, GYULAFEHERVAR, ARAD, TEMESVÁR. These four fortresses are in Hungary, on the left bank of the Tisa.

VICHEGRAD, a strong fortress where the Drina River is crossed, going into Bosnia, the Balkan Province whose annexation with Herzegovina by Austria stirred the Servians and is regarded as the origin of the war of nations in 1914.

Dockyards.

FIUME, with a water area of 24 acres and a depth of 11 fathoms, has three slips, newly built, capable of receiving dreadnoughts. These docks are in the yards of the Danubius Shipbuilding Co.

POLA, principal Government dockyard.

TRIESTE has two ship-building slips, in the yards of the Stabilimento, Tecnico. These can accommodate dreadnoughts. The length of quays at Trieste, which is the principal sea port of the Austro-Hungarian Empire, is 7,800 feet, with depth alongside of 34 feet.

BELGIUM

Belgium has no navy.

Fortresses and Fortifications

ANTWERP, fortress of the first class, believed to be impregnable.
LIÉGE, now famous for its resistance to the German army of invasion.
NAMUR, near Liége, was similarly fortified.

FRANCE

Naval Bases and Fortresses

France has two coast lines, one extending 1,760 miles along the Atlantic (the English Channel and the Bay of Biscay); the other 456 miles along the Mediterranean.

BREST, fortress and naval station on the westernmost coast of France, near the Ushant Light.

CHERBOURG, fortress and naval station, famous port of call for all craft plying between German ports and America.

LORIENT, fortress and naval base just north of the mouth of the Loire, and due west from Orleans.

ROCHEFORT, a fortified port on the Bay of Biscay.

TOULON is a fortress and naval station on the Mediterranean, south of Marseilles.

Frontier and Interior Fortresses

BELFORT. A companion fortress on the French side to Strasburg on the German. It is an entrenched camp with a perimeter of twenty-seven miles with triple lines of forts. Its normal garrison is 9,000 men but in war times can accommodate an army. Barracks, arsenals, and vast stores of munitions and food have accumulated. Military railways within the stronghold connect all departments.

EPINAL. A great citadel on the Moselle. It, too, is surrounded by great forts, extending over a perimeter of twenty-seven miles. Epinal has been designed for offensive as well defensive operations. It can co-operate with French armies operating in the Moselle valleys, and was constructed to enable the stronghold to menace an enemy attempting to cross the Vosges Mountains. Epinal is the headquarters of an army corps, and in times of peace maintains there, six infantry battalions, and six batteries of artillery. Other important works of defence stretch from Giromangny southward to Montebeliard.

French engineers laboured to leave no gap in the Vosges, which are themselves no mean barrier, and bristle with French guns.

TOUL, the centre of the French defensive position, is an entrenched camp with covering forts at Frouard and Pont St. Vincent. It has a large permanent garrison—fourteen infantry battalions and six artillery batteries in times of peace. Toul has great strategic importance on the main route to Chalons-sur-Marne. All this part of France is at all times prepared for war. Nancy, which is

unfortified, and which depends upon Toul for protection, has a garrison of twelve infantry battalions and twenty-four field batteries. Luneville always has sixteen squadrons of cavalry, and these with other squadrons at chains of outposts have long been ready at a moment's notice to dash toward the frontier, backed up by the fortresses and the armies they can send out or cover.

VERDUN is an entrenched camp. Numerous small forts extend along the front from Verdun to Toul, a fortress of the first-class on the Moselle, and the Strasburg railway line.

The above four strong and almost invincible fortresses guard the German frontier. Back of them there is a second line of defence, the fortresses of which are the following:

GUARDING the Italian frontier are: **BRIANCON** and **GRENOBLE**, and behind them, **LYONS.**

MAUBEUGE ON THE SAMBRE. This fortress guards any defence. east or west; **LA FÈRE, REIMS, LANGRES, DIJON** and **BESANÇON.**

Dockyards

BREST has one dock for ships, and other small docks.

CHERBOURG has two docks which accommodate battleships, and six smaller docks.

LORIENT has one dock for vessels of largest size; one for battleships; one for cruisers.

ROCHEFORT has three docks for small vessels.

TOULON (on Mediterranean) has one dock for largest ships; two for battleships up to 15,000 tons; six docks for cruisers and torpedo boats. Altogether France has dock accommodation for five dreadnoughts.

GERMANY

Naval Bases and Coast Fortresses

Germany on the north fronts the Baltic along 927 miles, and the North Sea along 293 miles. Guarding all these coasts are fortresses of the most modern type, among them:

BRANSBÜTTEL, at the North Sea entrance to the Kiel Canal. This station strengthens the position of the German fleet in the North Sea, and is protected by the elaborate defensive works guarding the Kiel Canal. The anchorage there is 37 ft. deep.

CUXHAVEN, at the mouth of the Elbe (the gateway to Hamburg).

FRIEDRICHSORT, in the Kiel district.

GEESTEMUNDE, in the Kiel district.

HELIGOLAND (Holyland), an island in the North Sea, 45 miles northwest of the mouths of the Elbe and the Heser, is the outpost sentinel fortress of Germany. It was taken by the British in 1807, and held until 1890, when it was ceded to Germany, England in the transaction securing Zanzibar and the island on which that rich commercial city stands just off German East Africa. Heligoland

was an island rock, crumbling against the action of the sea, when Germany took it over. It spent £10,000,000 on its new possession, buttressing the cliffs with granite walls, behind which concrete was poured and packed, filling all rifts and crevices. Beyond, groynes and breakwaters further protected against the waves. The plateau of rock was converted into a formidable fortress with sunken batteries of great Krupp guns. Also there were sheds for seaplanes, and on one side of the island a naval harbour was constructed at great expense. Heligoland was thus converted into what the Germans called the "German Gibraltar."

KIAO-CHAU, fortress in German protectorate in Chinese province, Shantung. Now invested by the Japanese fleet.

KIEL, the chief naval base of the Baltic. Vast sums have been expended to make it the most elaborately equipped station in the world. There are great works in the Imperial yards, in addition to which the Krupp and Howaldt Companies have extensive yards there; also a fortress.

KIEL CANAL (or Kaiser-Wilhelm Canal). A waterway that has been deepened and widened to allow free passage of battleships and even "dreadnoughts" between the Baltic and North Sea. It was completed just prior to Germany's engagement in war. It is regarded as of the utmost strategic importance. Formerly vessels of the German fleet in the Baltic, in order to reach the North Sea, had to steam entirely round Denmark and come back through Skager Rak to the North Sea and thence to Heligoland or Wilhelmshaven, where they would be, after that long voyage, but a few miles from the starting point. This waterway is 57 miles long, 36 ft. deep, and 144 ft. wide.

MEMEL, in the Königsberg district.

OSTERMOOR, a base of the Kiel Canal, with a harbour and docks for torpedo boats.

RUGENWALDE. At the mouth of the Wipper.

STOLPEMUNDE. At the mouth of the Stolpa is a coast defence fort equipped to guard the coasts between the greater streams, the Oder and the Vistula.

SWINEMUNDE, in the Kiel district.

WILHELMSHAVEN, fortress and principal German station on the North Sea.

Frontier and Interior Fortresses

All the fortresses of Germany are connected with one another by underground telegraphs, and radiating from both coast and land frontier fortresses are railways to all military centres.

BOYEN, fort in Koenigsberg district.

BROMBERG. The fortress guarding the railway approaches across the River Netze.

COBLENZ, fortress and entrenched camp in the district of Cologne.

COLOGNE, protected by fortifications of the first class.

DANZIG. This is a fortress of the premier class, and is designed to resist attack by land or sea. It is entrenched on the Mottlau, a branch of the Vistula.

DIEDENHOFEN and **BITSCH,** railway defence forts in the district of Metz.

GEMERSHEIM, defending railway lines in the district of Munich.

GLAZ, fort in district of Posen.

GLOGAN. The fortress defending the region of the Upper Oder.

HESEL and **SAARLOUIS,** defending railway lines in Cologne district.

KÖNIGSBERG. A strong fortress on a peninsula in the Baltic. The coast is steep, and on the east approach is opposed by the Dieme Canal. It has often been wondered why there were not more forts in north-east Germany along the Russian frontier. The reason is that from the Pregal, 50 miles from Königsberg, to the Russian frontier the country is a swamp ; likewise, the frontier in this district between the Vistula and the Wartha is swampy, and to the northward are forests growing in swamps.

KUSTRIN. An unusually strongly defended fortress at the confluence of the Oder and the Wartha. This stronghold has the advantage of being surrounded by marshes.

MAINZ. Military experts regard this fortress as the most strategic place in Western Europe. It is on the most eastern point of the Rhine, and completely dominates that stream and is designed also to command the route of the Neckar, the natural path to the Danube valley. It also commands the route of the Main leading to the Saale and Elbe Valleys and the route of the Kinzig leading to Kassel or to the Black Forest.

METZ, in Alsace-Lorraine, is considered the greatest stronghold on the German frontier. It is protected by eleven forts, one on a ridge commanding the road to Gravelotte. In peace times, the main concentration of the German army is at Metz, with thirty-three infantry battalions, ten squadrons of cavalry, and twenty-seven batteries of artillery. The fortress is equipped with long lines of warehouses, barracks, and arsenals, designed to support in war times forces marching from Thionville, just to the north, and with a great force backed by artillery to open passage through the French line of fortresses on the River Meuse, and thus clear the way to Chalons-sur-Marne, in France, on the direct road to Paris. On the citadel's esplanade, a bronze figure of Prince Frederic Charles, who captured it in 1870, is posed, looking determinedly toward the west.

NEISSE, fortress and entrenched camp in the district of Posen.

NEW BREISACH, in the district of Strasburg.

PILLAU. A fortress defending egress to the Frischer-Hof. Various fortifications defend the entrances of the north to the Kurischer-Hof.

POSEN. This is an entrenched camp equipped to enable Germany to make sortees and guard its whole eastern frontier. The natural advantage enjoyed by this entrenched camp, where armies have

their basis, is the River Wartha. Between this entrenched camp and Thorn there is another stretch of marsh.

SPANDAU and **MAGDEBURG,** fortresses and entrenched camps in district of Berlin.

STETTIN. Fortified from the sea approach. A canal connects this stronghold with the port of Swinemunde.

STRASBURG, in Alsace-Lorraine, on the Rhine, and south-east of Metz, with a peace garrison of twenty-four infantry battalions, six squadrons of cavalry, and seventeen batteries of artillery, is designed as a stronghold both for defence and offence. Along a perimeter of nineteen miles, twelve forts on the west of the Rhine and three forts on the east of the river are considered more than adequate to command and protect the city. Moltke, who designed it, conceived it to be impregnable, permitting German armies to manœuvre east and west of the Rhine without hindrance. Approaches by road and rail are strongly commanded. Citadel railways connect the fifteen forts, arsenals and stores. Vast supplies of munitions of war and food are within the chain of forts, and lines of trenches are always ready for occupation.

THORN, GRANDENZ, THE VISTULA PASSAGES and **DIRSCHAU,** forts in Western and Eastern Prussia.

TORGAU, a railway defence fortress in the district of Berlin.

ULM and **BASTATT,** fortress and entrenched camps in the district of Mainz.

Dockyards

BREMERHAVEN, private dock for largest ships.

BRUNSBUETTELL has two docks for dreadnoughts.

BREMEN, private dock, known as Emperor's Dock, leased by North German Lloyd S.S. Co., capable of accommodating largest ships; another of same kind owned by Blohm and Voss, of Hamburg.

DANZIG has one dock for dreadnoughts; two floating docks for small ships.

KIEL has two docks for dreadnoughts; four able to take battleships; three floating docks; one of these can take vessels up to 50,000 tons.

WILHELMSHAVEN has four docks capable of taking dreadnoughts; three docks for battleships; three floating docks; one dock for small craft.

Altogether Germany at the outbreak of the war had accommodation in the dockyards for eight dreadnoughts, and additional docks were building at Kiel, Bremerhaven, Hamburg, and Bremen.

RUSSIA

Naval Bases and Fortresses

Russia has sea frontage on the Black Sea, the Baltiic, the Gulf of Finland and on Far Eastern waters. Its shores are guarded by many fortresses, the chief of which are as follows:

KRONSTADT, a naval fortress on the island of Kotlin, near the head of the Gulf of Finland, and a little more than seventeen miles from Petrograd.

LIBAU, naval fortress and station on the Baltic.

OCHAKOV, fortress and naval basis in the Odessa district.

REVAL, naval station on the Gulf of Finland.

RIGA, strongly fortified toward the sea, or rather the River Dovina, is also a naval station. This fortified port is five miles from the Gulf of Riga and 312 miles from the Capital. Its trade is extensive, coming only after that of Petrograd and Moscow in importance.

SEBASTOPOL, in the Crimea, on the Black Sea. This is a natural harbour and could give anchorage to vessels of every kind. It has long been reserved exclusively as a naval station by Russia. Everywhere in the harbour there is safe anchorage. No vessel flying a foreign flag ever calls at Sebastopol unless it has a cargo of coal or machinery or munitions for the Government.

VLADIVOSTOK, fortress in far Eastern waters.

Frontier and Interior Fortresses

BREST-LITOVSK, is a fortress of the first class, directly east of Warsaw.

GONIONDY, on the River Bober, just inside the boundary line, and three miles north-west of Bralystock.

INGOLSTADT. A fortress of the Danube 200 miles from Vienna. Fifty miles south-westward is the great arsenal of Augsburg.

IVANGEROD. An entrenched camp, fifty miles south-east of Warsaw.

KARS and **BATUM**, in the Caucasus district.

KERCH, a fortress in the Odessa district.

LUBLIN; also in Russian Poland, ninety-four miles south-east of Warsaw. This stronghold is on a height above the left bank of the Bistritza River. Russia is so vast a country, with its more than 8,000,000 square miles, that some of these fortresses, though situated, like Warsaw and Lublin, a considerable distance from Germany's eastern boundary, are called Russia's frontier line of defence. Behind them (farther east) are other fortresses.

LUTSK, directly east of Lublin. Behind this line of citadels, and covering a longer line, is the Russian third line of defence.

NOVO-GEORGIEVSKI, in the district of Warsaw, just north of the city of Warsaw.

OSSOVETS and **UST-DVINSK,** two fortresses in the Vilna district.

SMOLENSK, the famous fortress on the Dnieper. This stronghold, which Napoleon destroyed, is now modern, and the place a railway centre. Smolensk is designed to check effectively any army penetrating Russia from the direction of Germany or Austria.

THORN (on the Russian side), on the Vistula, near the province of East Prussia. This is an exceptionally strong fortress, and between it and Modin (Novo-Georgievski) the Russian Government has constructed a vast entrenched camp, which accommodates 60,000 soldiers.

VIBORG, in Finland.

VLADIVOSTOK, in the Amur country.

WARSAW itself is a fortified city, which an invader would find harder to burn than it was 100 years ago.

Dockyards

CRONSTADT has one large dock for dreadnoughts ; three for smaller craft.

LIBAU has two docks for large ships.

NIKOLAIEV has large building slips on government ground. Thence the River Bug has been deepened at great expense to connect with Otchakov on the Black Sea.

SEBASTOPOL has two docks capable of receiving dreadnoughts.

State and private dockyards of varying capacity at **NEVSKY, OSTROV, VLADIVOSTOK, PETROGRAD,** and **IZHA-ABO.**

UNITED KINGDOM

Naval Bases and Fortresses

CORK, Queenstown, fortified.

GREAT YARMOUTH, naval depot.

NEWHAVEN, naval depot.

PORTSMOUTH, in Hampshire,

SHEERNESS, in Kent, and

SHOEBURYNESS, in Essex, are the three most formidable fortresses in the world.

British Naval Bases Oversea

ADEN, on the Red Sea, guarding approaches to the Suez Canal.

BERMUDA. Having no land frontier, the defence of this naval station is comparatively easy.

BOMBAY, strongly defended and of strategic importance.

CALCUTTA, naval base, difficult for the enemy to reach, as the channel up to Hooghly is tortuous and calls for the skill of a pilot thoroughly versed in the waters.

CEYLON.

GIBRALTAR, the key of the Mediterranean, commanding its western entrance.

HONGKONG, home of the British Chinese squadron. Both east and west entrances into this harbour are narrow and fully supplied with means of defence. It is the largest port in the world.

MALTA, the base of the Mediterranean fleet. It is held to be even stronger than Gibraltar or Hongkong, and is generally regarded as Britain's greatest stronghold. It is midway between Gibraltar and Suez.

SINGAPORE.

SIMON'S TOWN (Cape Town) fully equipped as a naval base.

SYDNEY, naval station of the first class, and headquarters of the Australian fleet waters. Sydney's proximity to the coalfields of New South Wales gives it peculiar importance as a naval base.

Defended Ports

BRIGHTON, Sussex; **BROUGHTY FERRY,** North Scottish; **CARDIFF,** Glamorgan; **DEVONPORT,** in Devonshire; **DOVERCOURT,** Essex and Suffolk; **EDINBURGH,** Forth; **FALMOUTH,** in Cornwall; **HULL,** East Riding; **KIRKWALL,** Orkney; **LIVERPOOL,** Lancashire and Cheshire; **NORTH SHIELDS,** Tynemouth; **PEMBROKE DOCK,** Pembroke; **PORT GLASGOW** (on the Clyde); **SOUTHAMPTON,** Hampshire; **WEST HARTLEPOOL** and **SUNDERLAND,** in Durham; **WEYMOUTH,** in Dorsetshire.

Dockyards

Portsmouth, Devonport, Chatham, Sheerness, Pembroke, Rosyth, Portland, Haulbowline, Dover, Gibraltar, Malta, Bermuda, Cape of Good Hope. Hong-kong, Wei-hai-Wei, Sydney, Keyham, Harwich, Singapore, Calcutta, Durban, Colombo, Auckland, Lylleton, Halifax, N.S., Quebec, Trinidad, Esquimalt, Brisbane, Fremantle, Melbourne, Port Chalmers, Wellington,

Victualling Yards

Gosport	**Gibraltar**	**Malta**
Plymouth		**Cape of Good Hope**

Naval Ordnance Depots

Woolwich	**Chatham**	**Malta**
Portsmouth	**Gibraltar**	**Hong-kong**
Plymouth		

Torpedo Factory and Depots

Greenock Torpedo Factory

Portsmouth	**Chatham**	**Malta**
Devonport	**Gibraltar**	**Hong-kong**

Oversea Coaling Stations

Malta	**Rangoon**	**Hong-kong**
Bermuda	**Aden**	**Capetown**
Gibraltar	**Bombay**	**Ceylon**
Jamaica	**Singapore**	

CHAPTER XVI

Stimulating Effect of War on Britain's Foreign Trade

"BUSINESS as usual." This is the motto of the commercial community during the present crisis. It is not without reason that we have been dubbed a nation of shopkeepers. War may ravage the heart of Europe, dynasties may fall, Armageddon itself may reign, but British trade and commerce, thanks to the protection afforded by the overwhelming might of our naval forces, flows on. Its usual channels may be temporarily obstructed; in some cases it may be forced to find a new river bed; but history proves conclusively that whatever may be the ultimate devastating effect of war, whilst war itself rages the industrial country whose credit is unimpaired and whose sources of raw materials remain open, enjoys for the time being an inflated demand for all its manufactured staple articles. And the factories of no other European nation produce staples in like quantity or of like quality to those of the United Kingdom.

The dire prophecies of the economists before the war, and the gloomy prognostications which followed the commercial panic when war was declared, seem unlikely to be fulfilled. Trade may be built up upon credit, but credit is only one part of the mechanism of trade. This part may be so delicate that it is liable to derangement by the mere breath of rumour itself. But none the less it is capable of being repaired at short notice, or of being adjusted to meet and cope with exceptional and untoward conditions.

In its last analysis all trade and industry depend upon the machinery and equipment of factories; willing and skilled hands to produce the products of machines; and alert and enterprising brains to distribute them. These are as much assets of the nation now that war is raging as at any time prior to its outbreak. It rests with the nation as a whole, through its individual traders, to make the best use of them.

The Readjustment Which the State of War Will Necessitate in British Industry

From the point of view of the business community as a whole, three things are needed in the present crisis: First, to prosecute business with vigour and replace markets which the war has cut off with new markets; second, to transfer the labour of those commercial and industrial activities which have been closed by the outbreak of the war into fields where there is a demand for their output; third, to produce as much wealth as possible for our future needs to make up the industrial ravages of the war. This way of looking at the problem will throw light on the question of foreign or colonial trade abroad and employment at home.

Germany is third on the world's list of consumers of raw materials. She takes the second place as a producer and exporter of manufactured articles. In 1913 the total value of her manufactured exports amounted to £538,000,000.

The effect of the war will be the total stoppage of this huge volume of trade for some months to come, and possibly for a year or more, should the titanic struggle prove long drawn out. With many millions of the world's factory workers engaged in a life and death struggle in or near the industrial heart of Continental Europe, the demand for manufactured goods from areas least affected by the upheaval must continue to grow in volume. In fact, though it is hazardous to prophesy in the face of such an abnormal crisis, it is safe to assert that, given the necessary

supplies of raw materials, the United Kingdom and the United States may both shortly expect a boom in their staple industries far surpassing anything experienced during the Franco-Prussian war of 1870-1871. *And these years*, it is well to remember, *were record years in the history of British trade.*

The raw materials which Great Britain draws from central Europe are, in comparison with the rest of her imports, a negligible quantity. But the combined raw materials which are needed for the use of German and Austrian factories nearly equal in volume those imported into Great Britain. The trade routes of the world, thanks to the preponderance of our naval forces, are now, with the exception of the Baltic Sea, open for the free and safe passage of our mercantile marine. Raw supplies intended for the needs of central Europe will shortly be diverted to British ports. Abundant materials will then be available for our factories at lower prices than have been prevalent for many years. The demand for our staple manufactures must steadily increase in volume until the war comes to a close. And this alone should, when the necessary readjustment of supply and demand has had time to take place, more than compensate Great Britain for the temporary loss of one of her best customers, Germany.

An interesting and important feature of German foreign trade is that its largest element is labour. The exports of the United Kingdom are larger, but England is a broker as well as a manufacturer, and handles many articles partly or wholly manufactured by other nations for a small margin of profit. Much of the trade of Great Britain is based on the actual necessities of other peoples. Ninety per cent. of the export trade of Germany consists of articles whose value is largely made up of German labour. Thus the majority of her imports into Great Britain are composed of products that we are capable of manufacturing ourselves or of luxuries that can readily be dispensed with and their purchase price diverted into more productive and fruitful channels.

The imports into the United Kingdom from Germany for the year 1913 amounted to eighty million pounds; the exports from this country to the Fatherland and Austria-Hungary were forty-five millions. As Germany's foreign trade is now completely stagnant and her mercantile marine idle, we are faced with a situation which may be turned to our advantage in three ways: our exporters should experience no difficulty in finding outlets elsewhere for the forty-five millions in value drawn from us by Germany, as will be shown later; the greater part of the eighty millions of German imports into this country can be replaced by home manufactures; and a big share of the German foreign and carrying trade will automatically fall into the hands of British exporters and shippers.

Extent to Which Germany Has Been England's Chief Competitor in Foreign Markets

The fact needs emphasis that Germany, more than any other country, has hitherto been our chief trade competitor. In every important market of the world her commercial travellers offer like commodities to those manufactured by Great Britain which are expressly designed to compete with British wares on the score of price. Any temporary loss suffered in the market of central Europe will be compensated by the extraordinary demand which must arise in every part of the globe where German commerce has penetrated.

In 1912 Germany exported to British Possessions alone goods to the value in round figures of £21,000,000, made up as follows:—

India and Malacca	£6,200,000
Australia	4,400,000
Canada	2,800,000
Africa	3,100,000
Egypt	1,900,000
Other British Dependencies	2,600,000
	£21,000,000

Her exports to South America, which is by far her most lucrative field, amounted in the same year to nearly £35,000,000, made up as follows :—

Argentine	£12,000,000
Brazil	9,600,000
Chile	5,400,000
Mexico	2,200,000
Uruguay	2,000,000
Cuba	1,400,000
Other South American Countries ..	2,300,000
	£34,900,000

whilst her trade in the Far East with China and Japan came to rather more than £10,000,000.

These countries, be it noted, are far removed from the seat of war and are in no way affected by the actual fighting. All told, they imported from Germany in 1912 goods and products to the value of sixty-six million pounds, whereas their exports of raw materials to Germany amounted to rather less than a quarter of this sum. This leaves a balance of nearly fifty millions in favour of the Fatherland. The major part of this balance must shortly be waiting to drop into the hands of the first alert bidder, and the only important bidders in the field for some months, if not years to come, must be Great Britain and the United States.

To turn from our over-seas trade to Germany's commerce nearer at home, we find that much the most important of her customers are naturally her nearby neighbours. Her exports to and imports from these countries are here tabulated.

Germany's Chief Customers.

To or From	Exports, 1912. in £1,000,000.	Imports, 1912. in £1,000,000
Austria-Hungary	51 ..	41
France	35 ..	26
Russia	34 ..	76
The Netherlands	30 ..	17
Switzerland	25 ..	10
Belgium	24 ..	17
Italy	20 ..	15
Carry forward,	219	202

Germany's Chief Customers—*continued.*

To or From	Exports, 1912. in £1,000,000.	Imports, 1912. in £1,000,000
Brought forward, Millions of £	219	202
Norway and Sweden	17	13
Denmark	12	10
Turkey	6	4
Spain	6	6
Millions of £	260	235

As to what will happen to this huge volume of trade it is safe to assert that much of it must of necessity go by default. Yet the non-combatants will need as many manufactured articles, in staple lines at least, as ever before, and even three of the chief participants in the fight—Russia, France and Belgium—may be expected to draw on us for more supplies than usual.

British Trade with Allies and Neutral Powers Will Continue

A few comparative figures of Russian foreign trade with Germany and the United Kingdom are instructive. To take one example of a specific product: In the year 1911 (the latest year for which returns are available) the total value of all textiles imported into Russia was £28,130,000. The British proportion of this sum was only 13 per cent. whereas Germany had to her credit no less than 37 per cent.

In the years prior to the outbreak of the Crimean War the percentage of Russian imports from the United Kingdom was 30 per cent. of all manufactured articles imported, or nearly double the German figures of 16 per cent. During the war Germany's exports to Russia increased to nearly 50 per cent. of the total volume. And the advantage thus gained was never afterwards lost. At the present day German exports to Russia are over three times the value of those from the United Kingdom.

The fact that the Baltic Sea will probably share with the North Sea the distinction of being one of the areas to suffer from this conflict, will not cripple the

trade between the two countries to the extent that we may imagine. For nearly six months in the year most of the Baltic ports are icebound. During these months a large reciprocal trade is carried on via the Mediterranean and Black Sea, Russia exporting to us vast quantities of raw products and receiving manufactured articles in exchange. Unless Turkey becomes embroiled in the conflict, of which at present there seems little likelihood, the Dardanelles will be open to commerce as usual, and a large increase in the freights carried to and from the Black Sea may safely be prognosticated.

With the allied and neutral Powers we did the bulk of our European trade in 1913, and as we possess the command of the sea much of it will remain. There will be both loss and gain, and more the former than the latter, but it is a profound mistake to suppose that our European trade will cease altogether.

Fortunately, too, our chief supplies of food and materials are extra-European, as will be gathered from the following statement (in million £):

	Imports from	(British Goods.) Exports to
ENEMY POWERS	88·2	45·2
ALLIED AND NEUTRAL EUROPEAN POWERS	221·0	133·4
TOTAL EUROPE	309·2	178·6
ALL THE REST OF THE WORLD	459·8	346·9
ALL THE WORLD	769·0	525·5

Our trade with the hostile Powers and with the rest of Europe in 1913 was as follows (in millions of £):

Country.	Imports from	Exports to (of British Goods).
GERMANY	80·5	40·7
AUSTRIA-HUNGARY	7·7	4·5
TOTAL	88·2	45·2
FRANCE	46·3	29·0
RUSSIA	40·3	18·1
ITALY	8·1	14·6
SPAIN	14·4	7·9
Carried forward	109·1	69·6

Country.	Imports from	Exports to (of British Goods).
Brought forward	109·1	69·6
Portugal	3·0	3·3
Switzerland	11·1	4·2
Holland	23·6	15·5
Belgium	23·4	13·3
Norway, Sweden, and Denmark	45·5	20·1
Turkey	1·1	2·5
Rumania, Bulgaria, Greece, and Servia	4·2	4·9
Total	221·0	133·4

Imports from Germany to Great Britain

(In £1,000)		(In £1,000)	
Aerated Waters	161	Embroidery (Machine made)	601
Wearing Apparel of Wool	823	Fancy Goods (Paris Goods)	605
,, other Materials	432	Artificial Flowers	312
Explosives	64	Glass	1,246
Sporting Ammunition	31	Glue	141
Ammunition	54	Hardware, Enamelled	443
Asphalt or Bitumen	118	,, Miscellaneous	464
Baskets	40	Hats and Bonnets (Felt), Trimmed and Untrimmed	274
Bead Trimmings	22	Hops	224
Sausage Skins	92	Scientific and Photographic Instruments	660
Books and Music	105	Jewellery	113
Boots and Shoes	111	Bags and Sacks	76
Bristles	106	Leather, Dressed	1,224
Brooms and Brushes	162	,, Crome Tanned	1,042
Buttons and Studs	356	,, Box Calf	826
Motor Cars	280	,, Gloves	380
Motor Car Parts	750	,, Miscellaneous	881
Rubber Tyres	1,129	Linen Goods	350
Chemicals	1,800	Machinery	2,240
Coal Products	130	Metals	1,320
Earthenware	730	Metals—Girders	407
Clocks	335	Pianos	700
Cordage and Twine	190	Parts of Musical Instruments	155
Cotton Goods (piece)	1,950	Painters' Colours & Pigments	1,000
,, Gloves	723	Paper	1,000
,, Hosiery	1,602	Picture Prints, Maps	454
Lace	1,115	Ribbons, Silk	480
Ribbons and Trimmings	720	Dressed Skins	934
Other Cotton Manufactures	730	Stationery other than Paper	266
Cutlery	113	Potatoes	422
Medicinal Preparations	332	Woollens and Worsteds	2,100
Coal Tar and Dye Stuffs	1,600		
Electrical Goods	1,213		

New Opportunities to Replace Foreign Goods

To turn from possible future fields for our exports to a consideration of the opportunity for the British manufacturer in his own home market, the prospects are even more tangible and concrete. Here there is nothing to be feared from the hazards of the sea, risky credit, and the difficulties of insuring payment—commercial risks which are prevalent at all times, but which become accentuated on the outbreak of war. For years the home manufacturer has asserted that smaller wages, longer hours, and a lower standard of living in Germany make it impossible for British manufacturers of certain lines to cope with their Teutonic rivals, and that the only remedy for this severe competition was a prohibitive tariff upon German manufactures. The war, then, should afford a better opportunity to capture the home market than any tariff, however prohibitive, and the British manufacturer ought to have little difficulty in providing most of the articles listed on the opposite page.

As to our home trade, this will be temporarily stimulated by war expenditure. The cost of the war will be an addition to home trade, and probably a subtraction from foreign investing (foreign investing often merely means the leaving abroad of imports due). It should largely fill the gap caused by immediate loss of some European trade.

Thus those who are talking glibly of ruin for the trade of the United Kingdom through the war do not know the facts of the case. The broad facts are that as soon as we recover from the temporary panic and dislocation of our credit system, far from losing any of our trade through the outbreak of hostilities we may in the end gain far more than we lose. In short, a brief addition might with advantage be made to our motto—"Business as usual during enlargement of premises."

CHAPTER XVII

The Adjustment of Business to Meet the New Conditions

THE greatest of all changes which will result from the war will be a gradually increasing demand for staple manufactured articles and a temporary diminution in the sale of luxuries. Such trades as that of jewellery, perfumery, high-class millinery, fashionable modistes, book publishing, piano manufacturing and like articles, whose purchase the community can either postpone without inconvenience, or dispense with altogether, will find a restricted market. But the general and all-round impetus which our staple manufacturers must receive as soon as orders have time to flow in from the four corners of the globe ought far to outweigh any set-back in the demand for luxuries.

To meet the change in conditions every manufacturer who finds the demand for his product decreased as a result of the war ought to utilize his resources for the production of something which will compensate him for the loss of his normal trade.

A glance through the tables of German imports to this country reveals thousands of articles the supply of which will probably run short, though a profitable demand is likely to exist. A mineral water manufacturer noted that Germany has hitherto imported into this country natural spring waters of an annual value of more than a million pounds. Foreseeing a future opening, he made prompt arrangements with a glass manufacturer for a large supply of bottles. The natural spring water trade has hitherto been in the hands of a few German firms more because of their appreciation of the value of aggressive advertising than because of any particular merit of the waters on

sale. As soon as the bottles are made and the labels printed he proposes to advertise a carbonated water taken from a spring which wells in the vicinity of a well-known English spa, and he hopes to capture a goodly share of the profitable trade in natural spring table waters.

Instances such as these, where the alert trader has revealed his readiness and resource in turning an embarrassing or disastrous situation into a profitable occasion, are occurring on all sides. They range from a manufacturer of lawn mowers who has now turned his attention to the production of sewing machines to the motor car maker, who finds a big and growing demand for commercial vehicles needed to replace the large number of horses requisitioned for the front.

Another necessity at this critical hour is for all to bear in mind the fact that the greater part of our export trade and the indispensable part of our import trade are conducted in ordinary peace times with countries far removed from the seat of the present war. Therefore, if production is in no way diminished, and everybody who has work to do goes about it as usual, it should be possible for our staple industries not only to maintain the total volume of their trade but eventually to increase it.

To this end it is important for business men to get together everywhere and discuss what can best be done to readjust the temporary dislocation, and direct as much of the disorganized labour as possible into fields where it can profitably be employed. Every manufacturer or trader who takes measures to find a substitute or equivalent for imports we may hitherto have received from Germany, or who seeks to ascertain how he can increase his foreign market in fields which have hitherto been exploited by Germany, is working to this end.

Vigorous steps have already been taken by various trade associations in this direction. At the head of our important textile industries is Sir George Pragnall, the chairman both of the Wholesale Textile Association and of the newly-formed special committee of the

National Patriotic Association, with headquarters at 32, St. Paul's Churchyard. The most important features of the plans inaugurated by the association are :,

The establishment of a museum of German samples for copying by British manufacturers.

An appeal to leading London banks to advance money to British manufacturers on terms similar to those offered by German banks to German manufacturers.

The Wholesale Textile Association has recently passed a resolution that every facility be offered to British manufacturers for the purpose of copying samples of popular goods which up to the present time Great Britain has imported from Germany in enormous quantities, to the detriment of British firms and British workpeople.

A similar spirit is evident on all sides among traders, both wholesale and retail, in all kinds of goods apart from the trade in textiles. If these will co-operate heartily in the same way, the difficulties of the situation will speedily be met and overcome. Vast quantities of hardware, toys, groceries, hosiery, fancy articles, and clothing of all kinds are among the innumerable variety of goods ordered from Germany for the autumn and Christmas trade. To produce these things it may be necessary for British manufacturers to lay down additional machinery and possibly to adopt new methods. But the opportunities of the situation are such that no manufacturer who can prove that there is a market awaiting his products need fear that lack of working capital will cripple him, for the National Patriotic Association has formed a committee to interview the leading London banks with the object of arranging for the temporary financing of any reputable and trustworthy trader who is ready to supply the needs of the market.

As a further means of mitigating the evil of unemployment it has been suggested that the Government might, if necessary, take steps to keep certain industries going until business has had time to recover and readjust itself. Seeing that the Government has gone so far as to guarantee the payment of bills drawn

before the outbreak of war, a further step to finance staple industries if necessary is logical in view of the unprecedented nature of the crisis.

Of course, only a relatively small number of industries will require this Governmental support, but where needed it might be accorded for the obvious reason that it is to the advantage of the nation as a whole to keep men at work producing something rather than for them to be idle and asking for relief after their employer has been compelled to discharge them.

Working with the same object in view, the Lord Mayor of London, at a special meeting of the Court of Common Council, emphasized the necessity of keeping business going as usual. He exhorted all employers of labour to do their best to keep employees busy—even if only at half-time and half-pay. It was decided that all the available machinery of the Court should be employed for the purpose of ascertaining within the City the trades affected by the crisis, in what way they were affected, and how arrangements could be made either to carry on the business or to transfer the men discharged to other trades and industries.

The British Electrical and Allied Manufacturers' Association has appealed to large purchasers of electrical plant and apparatus to continue their orders and so maintain employment. They point with approval to the excellent example set by the Australian Government, which has publicly exhorted its own importers to keep up and extend their trade connection with the Motherland.

The Board of Trade, which is always alert to the interests of the business community, recently issued the following notification:

" In view of the cessation of imports from Germany and Austria-Hungary, and the fact that there are many articles hitherto imported from these countries of importance, if not of necessity, to British manufacturers, information is invited by the Commercial Intelligence branch of the Board of Trade from

importers of such articles, as to their precise nature and quality, in order that steps may be taken to ascertain whether similar goods might be produced in this country, and if so, where; or, if not, from what neutral sources they could be obtained."

Doubtless in a large number of cases importers have already taken steps to inform themselves on these points, but from cases which have come under the notice of the Commercial Intelligence branch it is believed that in some instances it has not proved an easy matter to obtain the necessary information, and it is thought that in such cases the branch may be able to render some assistance.

Now is the time, if ever, for manufacturers, and in some cases the Government, to look into these things. At the present crisis in the affairs of nations there is and will be opened the rarest opportunity for a new prosperity both in agriculture and in manufacture. Immediate and obvious reforms are an improvement in the Consular service, which at present is chiefly useful to foreigners; the sending out of intelligent "travellers" who wish to learn as well as to sell; and an organized endeavour to regain the commercial arts which we have surrendered to Germany from, if not laziness, at least a deficiency of commercial acumen.

CHAPTER XVIII

Civil Organization in War Times

A NATION in a state of war is entitled to proclaim itself under a state of martial law. The necessary steps to this end were taken in the Empire of Germany some days before the actual outbreak of hostilities.

A form of martial law is at work in all parts of the United Kingdom under the Defence of the Realm Act, 1914, a special Act of Parliament which provides that all necessary military precautions for the safety of the realm, which might otherwise have had to be taken under the operation of martial law, can be made by administrative acts of the military authorities without supplanting the magistrates.

Apart from the military and naval mobilization and preparations, the first active step for national organization undertaken by the British Government on the outbreak of war was to acquire a strong grip on the financial situation. One of the first steps was the closing of the London Stock Exchange, an event which was necessitated by the closing of the stock exchanges of other nations affected by the conflict. Consequent upon closing the Stock Exchange, was the declaration of a moratorium, an event almost without parallel in the history of English finance. Under the terms of the moratorium, the holders of bills of exchange and other negotiable documents calling for the payment of cash in a definite way at a definite time were compelled to forego their privileges, and creditors were thus relieved for the time being of finding gold to meet their obligations.

Another important step taken was the suspension of the Bank Act, which meant that the restriction

of the Bank of England in the matter of issuing bank notes only against its reserve of gold was suspended, and the Bank could issue notes on its own authority, and thus draw into its vaults all available stock of gold in the country. To facilitate this operation the Bank of England official rate of discount, which in all ordinary times is an indication of the actual state of gold reserve and credit, was arbitrarily raised to 10 per cent. The effect of this was to stop all speculation.

Most of these necessary acts of national organization were accomplished by means of hurried Acts of Parliament, a process which was facilitated by the unanimity of all political parties. Other things were accomplished by Orders in Council made in the name of the King. In a short space of time no less than 17 Royal Proclamations were issued, covering a great variety of subjects. Among other things it was declared that postal orders were to be made legal tender. At the same time arrangements were made for the issue by the Treasury of a large amount of paper money in the form of £1 and 10s. notes.

All railway tunnels, bridges, telegraph lines, post offices, waterworks, electrical power stations, etc., were placed under sufficient observation and guarded, and in not a few cases Germans were discovered engaged in acts which placed them under the suspicion that they harboured evil designs upon such public services.

Possibly one of the most important acts which has ever happened in the history of English commerce was the taking over by the Government authorities of the whole of the railways of the United Kingdom. This was done not only to facilitate the movements of the troops and of military and naval supplies, but also because in the possible event of hostile forces landing upon our shores, it would be necessary for the Government to have absolute control of means of transport and communication.

In other directions, also, there was great activity for some days before the outbreak of war. The Post

Offices in the United Kingdom were ordered to be kept open day and night, the Government using the Post Office and telegraph service for the purpose of mobilization. All wireless telegraphic installations, to the number of 2,000, whether for receiving or transmitting messages, were also brought under control of the authorities, and ordered to be dismantled.

Steps were also taken to organize a military postal service. This was all the more necessary because of the fact that the movement of the British military and naval forces was kept absolutely secret and no communications from the officers or men of the Force were allowed if they revealed the places where such Forces were stationed. At the same time arrangements were made for forwarding letters addressed to the officers and men, which were distributed from a special department in the General Post Office.

A censorship of news was also established. This was largely carried through by the co-operation of a committee of newspaper editors, who previously agreed in the event of necessity that any war news likely to be of service to the enemy would not appear in print. Later on an official News Bureau was established in the charge of the Right Hon. F. E. Smith, which gives out to the Press at frequent intervals the latest available news of the work of the Forces and the progress of the war, when such information can be safely published. All these activities have been largely assisted by the wholesale taking over by the Government of public vehicles, and employment of boy scouts, whose organization was officially recognized as a civic force in the early days of the war.

An enormous amount of activity is being pursued in organizing proper methods for the care of wounded soldiers and sailors. All over the country come offers of help from rich and poor, duke and dustman vieing with each other in offering services. The organization is in the hands of the British Red Cross Society, which finds at its command a body of 60,000 helpers. The use of no less than 650,000 hospital beds has been offered.

CHAPTER XIX

Military Law and the Rules of Warfare

THE Laws of War are vague and nebulous, but in various treaties and conventions humane rules have been laid down which civilized nations usually observe.

By existing written agreements the use is prohibited of explosive projectiles weighing less than $14\frac{1}{4}$ ounces; or of exploding bullets, or of projectiles charged with asphyxiating gases. Two Geneva Conventions also relate to the protection of members of the Army medical services, their hospitals, etc., and supplies. These rules are very seldom violated. At the third Peace Conference, the discharge of projectiles from air-craft was generally decried. Among the prohibited means of killing in warfare are the use of unnecessarily cruel weapons, such as barbed lance-heads, or poisoned weapons, contamination of water-supplies, assassination, outlawry, or the killing of surrendered combatants. On the other hand, water supplies may be destroyed or diverted.

As to the position of citizens, it is not considered permissible to detain as prisoners subjects of a hostile country resident in the other at the opening of war. Reservists, however, may be detained, and citizens may be placed under restriction. Expulsion from seaports and defended places and the area of possible hostilities is allowed.

A belligerent enemy has certain rights and privileges. He may be killed so long as he resists, but once he lays down his arms he is entitled to honourable treatment as a prisoner of war, and must be protected and maintained.

To become entitled to the status of a belligerent, a man must be under a responsible commander, be dressed in a distinctive fashion, carry arms openly and observe the customs of war. Men who rise spontaneously to defend a district are entitled to treatment as belligerents, even if they do not comply with the foregoing conditions. A man who has become a belligerent cannot reassume the status of private citizenship.

It is expressly laid down that army followers such as journalists, sutlers and contractors, who hold military certificates, if taken must be treated as prisoners of war. Sovereigns, ministers, diplomats, etc., and even teachers and clergymen, may all be taken prisoners, or detained for a period.

Prisoners of war may be shot down if they resist their guards or attempt to escape; or they may be executed for a crime of war after due trial and condemnation. Prisoners may be set at liberty on parole if circumstances allow. Due records of each prisoner must be kept, and if he dies in captivity the circumstances must be reported.

In regard to sieges, the bombardment of undefended places, fortified or not, is forbidden. When a fortified place has surrendered it is forbidden to damage it more than the exigencies of warfare demand, and public and private property in its neighbourhood must be left alone.

Espionage is lawful in warfare, but custom admits the punishment of spies by death. The definition of a spy relates to one who clandestinely obtains information and communicates it to his friends. A soldier not disguised, who penetrates the zone of operation, or an aviator cannot be treated as spies. Dissimilation is the principle characteristic.

The treatment to be accorded to the sick and wounded has been definitely laid down in international agreements. They must be cared for irrespective of nationality. A belligerent who is compelled to abandon his wounded on a battlefield must leave behind a portion of his medical personnel and supplies. Captured sick and wounded become prisoners of war, but may

be handed over to a neutral state. Records of captured wounded must be kept and forwarded.

States not taking part in a war are said to be neutral, and are placed under definite obligations not to assist belligerents in a large number of definite ways. They must receive notification of a state of war, and thereupon make a formal declaration of neutrality.

Neutral territory may not be violated; and in event of accidental violation armed ships and forces must be disarmed and interned, or detained, till the end of the war. They may even resist accidental invasions by force, and such resistance does not cause them to become participants in the conflict.

The existence of a state of war between nations possessing naval resources affects maritime commerce between the belligerents and other nations. The claim of Great Britain to be "mistress of the seas" on such occasions accounts for several chapters in English economic and political history. Most of the bombastic claims of England in this matter have fallen into desuetude, but on her former practices a code of maritime usage in wartime has been built up. Briefly, a belligerent warship may hold up, challenge and examine any boat on the high seas and satisfy her captain that the vessel does not belong to the enemy nation, or if neutral, is not conveying contraband of war to an enemy's port. The "right of search" however, has always been denied by the United States, and was one of the causes of the war with England in 1812. Neutral vessels proceeding to neutral ports cannot be detained, but it is an open question whether a neutral vessel bound for a neutral port and containing contraband could be detained or not, even though it was strongly suspected that the contraband was intended to reach the enemy by a devious route. Enemy merchant ships, that is ships registered at an enemy's port, can be seized, and condemned by a court as prizes of war. A neutral power must not knowingly allow a vessel to ship contraband directly to a belligerent port; nor may such a vessel change its nationality to avoid risk.

CHAPTER XX

Glossary of War Terms and Customs

An A B C of the Technicalities of the Army and Navy, and of Warfare Generally

Adjutant.—An army officer who assists a commanding officer in detail work. He is mainly responsible for discipline and drill. He may not be above a major in rank.

Admiral.—An executive officer in the Royal Navy in command of a fleet or squadron of battleships. Four degrees of seniority are recognized, viz.: Admiral of the Fleet (£2,190); Admiral (£1,825); Vice-Admiral (£1,460); and Rear-Admiral (£1,095). These rates of pay are supplemented by prize-money and other allowances. They are known as "flag officers," and when on board the admiral's flag is flown on the fore, main, or mizzen masts, according to rank. In times of peace there are about 25 admirals on the active service list. See RANK.

Admiralty, The.—The chief Government office in Whitehall, London, S.W., where the business of the British Navy is centred. It is in touch by wireless telegraphy, with all ships within the range of call. The First Lord of the Admiralty (Mr. Winston Churchill) is in charge, and is responsible to Parliament for its control.

Aeroplane.—An air-craft with wings which lift it by forcing air downwards and supporting themselves on the reaction thereof. Propelled through air by motor-driven air-screws (propellers), either in front of or behind the aeroplane, and known as tractors or pushers, respectively. The elevator is the rudder-like device which controls the upward and downward movement.

Aide-de-Camp.—An officer, naval or military, who is in close touch with an admiral or general, and assists him in all routine matters. The appointment of Aide-de-Camp to the King is usually an honorary distinction, involving only nominal duties.

Airship.—A dirigible balloon, an air-craft floating in air owing to its being filled with gas which is lighter than air. Propelled by motors driving air-screws (propellers). A rigid airship is one in which numerous gas-bags are contained in a rigid frame-work so that if one or more are punctured the machine does not collapse. All Zeppelins are "Rigids." In a non-rigid airship the gas is contained in one big bag, possibly with internal partitions. If punctured all gas leaks away, or whole gas-bag (envelope) may tear, and collapse. It can be deflated and transported by sea or land. A semi-rigid airship has a single, or partitioned, envelope, and is liable to sudden deflation, but being supported by long boom below, to which car or "gondola ' is suspended, will not fold up and collapse suddenly when merely leaking.

Alien.—The legal term for a foreign resident in the United Kingdom. The Royal Proclamations, etc., describe the subjects of the Emperors of Austria-Hungary and Germany as "alien enemies," and require them to register themselves with the police authorities, under heavy penalties for neglect. British subjects may not harbour an unregistered "alien enemy." The Aliens Restriction Order of 1914 places alien enemies under certain disabilities in respect of the possession of fire-arms, motor-cars, motor-cycles, petroleum, and other articles. An alien may become a naturalized British subject.

Armistice.—An interval of time agreed upon between belligerents for a temporary cessation of hostilities. Armistices may be general local, or partial. Compensation must be made for damage accidentally done during an armistice. No offensive measures are permitted, but sundry defensive acts may be carried out.

Army Council.—A committee of experts under the presidency of the Secretary of State for War, which has the final disposition of the defences of the Empire. The Council consists of Lord Kitchener, Gen. Sir C. W. H. Douglas, Lt.-Gen. Sir H. C. Sclater, Maj.-Gen. Sir J. S. Cowans, Col. Sir S. B. Von Donop, and the Rt. Hon. H. J. Tennant. Each service member is a specialist in some branch of military science, and has had practical experience in the field.

Army Service Corps.—A highly organized department of the army which attends to the transport of baggage and supplies, and also assists the medical service. See also COMMISSARIAT.

Attack in Detail.—In order to accomplish warlike operations it is first necessary to break through the enemy's front. One of the portions thus separated may then be contained by a detachment of the attacking army, while the main force overwhelms the other part. The whole army is then available for crushing the part of the enemy's force that has been contained. This strategic operation was highly developed and successfully employed by Napoleon.

Base of Operations.—The point from which an army begins its expedition. A base of supplies is the point from which an army gets its supplies.

Battalion.—A military unit of about 1,000 infantry, with 96 commissioned and non-commissioned officers. It is commanded by a lt.-colonel (See COLONEL), and divided into companies, each under a captain. A battalion is a self-contained tactical and administrative unit, with band and medical and ammunition services, etc., and the requisite number of horses.

Belligerents.—The opposite term to "NON-COMBATANTS" (which see). All soldiers are regarded as belligerents and have certain rights recognized by International Law. If captured in battle and taken on surrender their lives must be spared. The laws of war require that definite conditions shall be complied with before a man can be recognized as a belligerent. He must be commanded by a responsible leader, wear distinctive uniform, carry arms openly, and obey the laws and customs of war. The possible exception is where the population of unoccupied territory spontaneously take up arms to resist invading troops, in which case they are entitled to belligerent rights. If people who are not actually in the army take it upon themselves to defend their own houses or workshops, they not only run the risk of being captured and shot, but the chances are that they will induce the enemy to take reprisals on the rest of the population.

Billeting.—A legal process by which armed troops may be quartered in the houses of private persons. It is a condition of the license of most hotels, etc., that they must billet so many soldiers on demand. Under modern conditions general or field officers issue billeting requisitions and requisitions of emergency for the provision of carriages, animals, vessels, and aircraft. The following rates are paid for billeting to an occupier other than the keeper of a victualling house: Lodging and attendance for soldier where meals furnished, 9d. per night; breakfast as specified in schedule to Army Act, 7½d. each; dinner as so specified, 1s. 7½d. each; supper as so specified, 4½d. each; where no meals furnished, lodging and attendance, and candles, vinegar, salt, and use of fire, and necessary utensils for dressing and eating his meat, 9d. per day; stable room and ten pounds of oats, twelve pounds of hay, and eight pounds of straw per day for each horse, 2s. 7½d. per day; stable room without forage, 9d. per day. Lodging and attendance for officer, 3s. per night. An officer must pay for his food.

Black Watch.—The first of Highland regiments, created in 1668, and clothed in a dark tartan. It was reorganized in 1881. In former times membership was practically confined to certain clans having the same political affinities.

Blockade.—A means taken by a navy to prevent vessels reaching or leaving a port in war time without permission. A blockade runner is a vessel which eludes this process.

Bombardier.—The lowest grade of non-commissioned officer in an artillery regiment, and corresponding to corporal in the infantry. In old times he handled the bombard, or fuse, which fired a gun.

Bombardment.—An attack by artillery or naval guns upon a place fortified or unfortified. At the last Hague Conference all the Powers, including Germany, agreed to a rule by which the bombardment of undefended coast towns is prohibited. To secure the benefit of the prohibition, a place must be completely without defence. Seaside towns, though immune from bombardment, may at any time be ordered to provide foodstuffs and other necessities for an enemy's fleet. By a rule of the Hague Conference such contributions must be paid for. Bombardments from the sea have generally been more successful than those from land positions, on account of the defenders' difficulty of returning effective fire.

Boy Scouts.—An organization started by Major-Gen. Sir Robert Baden-Powell, which has spread from England to every country in the world. The basic idea is to inculcate the idea of honour, and every Boy Scout is pledged to "do a good turn every day." It is a strictly non-military organization, both in form and substance. The B.P. Boy Scouts' organizations were recognized by the Government on the Declaration of War, and the boys have been employed in various civic capacities.

Brigade.—A military unit of several regiments under an officer known as a Brigadier. A British Infantry Brigade consists of four regiments associated together for medical service, transport, and supplies. See also DIVISION.

Cadet.—See GENTLEMAN-CADET.

Camp-Followers.—Civilians, male and female, usually of an undesirable character who follow in the train of an army on active service. The discipline of modern armies has reduced the evil side of camp-following to a minimum.

Capitulation.—An agreement entered into between belligerents relating to the surrender of troops or fortresses. A surrender of territory is often called an evacuation. A capitulation must be confined to purely military matters, and its acceptance implies no final settlement of the points at issue.

Captain.—In the British Empire this rank denotes an officer of a warship carrying at least 20 guns. A captain in the Royal Navy is responsible for discipline, navigation, and equipment. A post-captain is one whose name has been "posted" on a permanent list; a flag-captain commands an admiral's ship; a captain of the fleet is a temporary officer in charge of fleet discipline, and is equivalent to an adjutant in the army. The "captain of the gun" is a petty officer in charge of a gang of men. A captain in the Army commands a company of infantry, troop of cavalry, or battery of artillery. He ranks between a lieutenant and a major. He is responsible for the arms, clothes, efficiency and discipline of his men, and recommends for promotion the non-commissioned officers. A captain in the Navy receives from £411 to £602 per annum, with allowances and share of prize-money. An Army captain has, according to regiment, £211 to £273.

Cartel.—An agreement between belligerents to allow certain kinds of non-hostile intercourse, such as postal service, trade in certain commodities, etc. Strictly speaking a "cartel" is a document regulating an exchange of prisoners. A cartel ship carries such prisoners and is inviolate.

Cavalry.—A branch of military service in which every man is mounted, and horse and man work together for carrying out the purpose of the commander. Cavalry is dis-

tinguished from mounted infantry, where the horses are only used to obtain celerity of movement. Cavalry is mainly used in action to penetrate a mass of infantry which has been confused by artillery attack. They were also largely used for reconnoitring, but their duties in this direction are now largely done by aviators.

Centimes, Centimi, Centisimi.—Small copper coins worth one-hundredth of a FRANC (which see), circulating in France, Spain, Belgium, Italy, etc.

Central Flying School.—A school at Upavon on Salisbury Plain, run jointly by the War Office and Admiralty, where some sailors, most soldiers, and nearly all civilians accepted on probation for the R.F.C., or R.N.A.S., after passing the Royal Aero Club tests for the aviator's certificate, are trained to become capable of taking up duty with their own section of the Services. Commandant: Captain Godfrey Paine, C.B., M.V.O., R.N.

Centre of Information.—An organized position at which information of the strength and position of the enemy can be gathered and disseminated. Such centres are generally equipped with wireless telegraphy.

Ceylon Planters' Rifle Corps.—An irregular corps under the command of Lt.-Col. Biddulph, organized by the Ceylon Association in London.

Code.—A means taken in giving signals and transmitting messages in the army and navy to see that they cannot be interpreted by an enemy. Secret code books have been known to be stolen; and it is doubtful whether any code is really secret or undecipherable. The basis of the army cypher code is an arbitrary arrangement of five letters. It is forbidden to put part of a message in code and part in plain writing lest, by falling into hostile hands, the key to the code should be revealed.

Colonel.—The chief commander of a regiment in the British Army (originally the leader of a column). The grade comes between that of general and major. The chief acting officer of artillery or engineer regiments is always a colonel, but in the infantry and cavalry he is frequently known as a lieutenant-colonel, the full rank being often conferred as a honorary distinction upon some Royal or distinguished personage. A colonel or lt.-colonel's pay varies from £328 to £447 a year according to the branch of the service.

Column of Route.—The formation adopted when troops are on the march. Infantry usually march four men abreast, and proceed at the rate of 100 yards per minute. Cavalry proceed in half-sections, two horses abreast. The average rate of marching for a large body of troops composed of all arms is 2½ miles per hour including short halts. Rates of movements for small bodies of troops in the field are approximately as follows:—

Arm.	Yds. per minute.	Miles per hour including short halts.
Infantry	100	3
Mounted Troops		
Walk	117	3⅓
Trot	235	7
Gallop ...	440	—
Trot and Walk	—	5

Combatant.—A general term to designate those who take part in actual fighting and carry arms, as distinguished from civilians and such followers of an army as surgeons, nurses, chaplains, grooms, etc. See NON-COMBATANTS.

Commandant.—A title usually given to a military officer in charge of a fortress, military station, or military school. A captain-commandant is a captain who is temporarily doing duty of a higher rank.

Commandeer.—A popular term introduced with the South African War to denote the forcible taking of horses and supplies for the use of combatants. When such a proceeding is attended by compensation, it is said to be a "requisition."

Commander.—A title in the Royal Navy given to the chief officer of the smaller warships. When serving on a large vessel he is the navigation officer. A commander's pay is £401 a year, exclusive of allowances.

Commissariat.—The department of an army responsible for the supply and transport of food and forage. An army CORPS (which see) is accompanied in the field by twelve commissariat companies. See also ARMY SERVICE CORPS.

Commission.—The document by which an officer in the army or navy is authorized to exert his powers. It is signed in the name of the King, and formerly bore his actual signature. For the various grades of commissioned officers, see RANK.

Commodore.—A temporary rank in the Royal Navy between that of admiral and captain. He has usually charge of a few ships told off for a special service. It is sometimes a courtesy title of a senior captain. A first class commodore's pay is £1,095 a year

Company.—A number of about one hundred men, forming a definite part of a battalion, under a captain, with two lieutenants under him.

Consul.—An official maintained by the British Government in foreign countries to supervise the commercial business of the State and its subjects. The order of precedence of such officials is: Consular agents consular-generals, consuls and vice-consuls. A consulate is considered as part of British territory. A consul may perform all the functions of a magistrate and may marry British subjects.

Contraband of War.—A term applied to various articles which are regarded as being of sufficient help to an enemy to prolong a war that the transportation of such articles to him, especially by ships, is prohibited. Each nation has its own list of contraband articles. Great Britain distinguishes between absolute and conditional contraband, according to the text of an Order in Council relating to enemy merchant ships, and a Royal proclamation specifies the following articles to be treated as absolute contraband: Arms of all kinds, including arms for sporting purposes and their distinctive component parts; projectiles, charges and cartridges of all kinds, and their distinctive component parts; powder and explosive specially prepared for use in war; gun mountings, limber-boxes, limbers, military wagons, field-forges, and their distinctive component parts; clothing and equipment of a distinctively military character; all kinds of harness of a distinctively military character; saddle, draught and pack animals, suitable for use in war; articles of camp equipment and their distinctive com-

ponent parts; armour plates; warships, including boats and their distinctive component parts of such a nature that they can only be used on a vessel of war; aeroplanes, airships, balloons, and aircraft of all kinds and their component parts, together with accessories and articles recognizable as intended for use in connection with balloons and aircraft; implements and apparatus designed exclusively for the manufacture of munitions of war, for the manufacture or repair of arms or war material, for use on land and sea. The following articles will be treated as conditional contraband: Foodstuffs; forage and grain suitable for feeding animals; clothing fabrics for clothing and boots and shoes, suitable for use in war; gold and silver in coin or bullion, paper money; vehicles of all kinds available for use in war, and their component parts; vessels, craft, and boats of all kinds, floating docks, parts of docks, and their component parts; railway material both fixed and rolling stock, and materials for telegraph, wireless telegraphs, and telephones; fuel, lubricants; powder and explosives not specially prepared for use in war; barbed wire, and implements for fixing and cutting the same; horseshoes and shoeing materials; harness and saddlery; field-glasses, telescopes, chronometers, and all kinds of nautical instruments.

Corporal.—A non-commissioned officer of the lowest rank in infantry regiments. In the Household Cavalry, a corporal is equivalent to "sergeant," the latter rank being unknown. A corporal wears as a badge two stripes on the left arm and receives from 1s. 9d. to 2s. 8d. a day.

Corps, Army.—A division of the army comprising, infantry, cavalry and artillery, in command of general officers. The British Army in times of peace is divided into 6 army corps, half of which are composed of regular troops and the remainder of Militia and Territorials. The strength of an army corps is not definitely fixed, but consists of about 40,000 men.

Council of War.—A deliberation of staff officers in charge of a campaign. In modern times the real Councils of War do not meet on the field of battle, but are conducted at the War Office. See ARMY COUNCIL.

Cruiser.—A term applied to war vessels built primarily for speed. They are divided into various classes and are either protected or unprotected. A battle cruiser is a fast boat whose armament is only slightly inferior to those of the strongest battleships. See also MERCHANT CRUISERS.

Declaration of London.—A document signed by Great Britain, Germany, France, Austria, Russia and other Powers in 1909 to place on record the principles of international law affecting maritime commerce, etc., in times of war. The chief points agreed upon had regard to: Blockade, contraband, unneutral service, destruction of neutral prizes, transfer to neutral flag, enemy character, convoy, resistance to search, compensation.

Declaration of War.—A formal notification through diplomatic channels that a state of war exists between two countries, whose respective ambassadors thereupon ask for their passports and return home. Acts of war often precede a formal declaration.

De-coder.—A petty officer in the Royal Navy told off for the special duty of deciphering wireless messages. See CODE.

Decoration, Military.—Military decorations consist of medals or orders of Knighthood. The medals are attached to the recipient's breast by a distinctive ribbon. When the holder has been through a succession of battles he receives a bar for each battle which is attached to the ribbon. The most honourable decoration is the Victoria Cross, which is awarded for saving life on the field of battle or conspicuous gallantry. The Victoria Cross has been awarded after the death of its recipient. The Order of St. Michael and St. George is a military knighthood, the wearer of which wears a broad saxon blue ribbon, with a scarlet stripe. The Distinguished Service Order entitles the recipient to use the letters D.S.O., and is conferred on officers whose work on the field is of particular merit. The Royal Red Cross entitles the recipient to the use of the letters R.R.C., and is a decoration bestowed upon women for zeal and devotion in providing for and nursing sick and wounded sailors, soldiers, and others with the army in the field, on board ship, or in hospitals. Foreign as well as British subjects are eligible.

Dinar.—The silver monetary unit of Servia, and exactly equivalent to the FRANC (which see). It is divided into 100 parts. Gold coins of 10 and 20 dinars are minted.

Dispatches.—The official reports made by commanding officers to the War Office or Admiralty. Being "mentioned in dispatches" is a distinction alike to officers and men. On such reports are based subsequent promotion and the distribution of honours. A "dispatch runner" is a mounted soldier who carries messages on the field from point to point.

Division.—A unit of the Army. In an expeditionary force it consists of twelve regiments, six batteries of horse artillery, four field troops of engineers, signal company, four field ambulances, baggage train; in all consisting of 9,978 officers and men, 9,945 horses, 24 machine guns, 24 thirteen-pounders, 72 ammunition wagons, 20 motor cars, 138 two-horse vehicles, 284 four-horse vehicles, 81 six-horse vehicles, 197 bicycles. An army division of full war strength consists of twelve infantry regiments, nine batteries of 18-pounders, two batteries of 5-in. howitzers, three batteries of 4·5-in. heavy battery siege guns, ammunition column, two field companies and engineers, signal company, two mounted infantry companies, three field ambulances of sixteen wagons each, baggage train; in all consisting of 19,111 officers and men, 6,773 horses, 24 machine guns, 54 field guns (18-lb.), 12 howitzers, 4 "long toms," 198 ammunition wagons, 8 motor-cars, 274 two-horse wagons, 232 four-horse wagons, 241 six-horse wagons, 135 bicycles. See also CORPS.

Douane.—The French term for Customs House.

Ducat. A Dutch gold coin equal to ten GULDEN (which see).

Dum-dum.—A popular name for an expanding bullet, the use of which is prohibited in civilized warfare. The term is often applied to ordinary nickel-cased bullets with the tips filed off.

Echelon.—A military term used to denote arrangements of troops into a form of ladder, the men being not exactly behind each other, but to the right or left of the proceeding one.

Error of the Day.—A term used in artillery practice to denote the amount of correction which must be made in the elevation of a big gun on account of the temperature of the atmosphere, the pressure of the barometer and the quality of the light. These calculations have been brought to such a pitch of perfection that the amount of error requiring correction after a trial shot at a distance of 6,000 yards may not amount to a few feet.

Espionage.—The act of spying upon an enemy. See SPIES.

Expeditionary Force.—A military unit consisting of a definite number of men, as organized in times of peace, which is ready for sending to foreign parts on the declaration of war. Such a force is adequately equipped with all stores and supplies.

Exterior Lines.—When naval or military operations are conducted in such a manner that the nearer the belligerent forces get to the enemy the less able they are to support each other, or the further they get from their bases, the operation is said to be conducted upon exterior lines. In the history of warfare such operations have generally been proved inferior to those upon interior lines.

Field-Marshal.—The title of the British military officer of the highest rank. He carries a baton as a symbol of rank.

Flanks.—The ends of a army on the field. To "turn the enemy's flank" is to go around his left or right wing.

Florin.—A Dutch coin (See GULDEN).

Foreign Legion.—A term given to military bands raised in Great Britain from among foreigners resident in our midst. Among these may be mentioned the King's Foreign Legion, organized by Chevalier Luigi Ricci, and the Foreign Legion raised by Captain Webber. Foreign legions of this kind were used by Garibaldi in 1866, and during the Franco-Prussian War.

Franc.—The silver monetary unit of France, Belgium, etc. Its exact value in British money is 9·518d. (say, 9½d.). Gold coins of 10 and 20 francs are minted. It is divided into 100 centimes. Five centimes (copper) is known as a sou. In Luxemburg the franc is divided into 80 pfennige.

Franc-tireurs.—An irregular force of Frenchmen and their sympathizers used in the Franco-German War, who conducted guerilla operations against the Germans.

Front.—A term applied to the line along the front of the body or bodies of combatants. Front of operations is the space between the fronts of opposed bodies of combatants.

Frontier.—The boundaries of a country usually marked out by lines of posts. A frontier is a line either natural or artificial, dividing two states. This line may be straight or may contain a salient bend, a re-entrant bend, or a double re-entrant with salient between. In the case of a straight frontier neither country possesses any advantage. In the case of a frontier with a salient bend the side possessing it may be said to be on the offensive.

General.—An army rank next below that of Field-Marshal. Subsidiary ranks are those of Lieut.-General and Major-General. A successful general is often rewarded at the end of a war by a peerage and a grant of money.

Geneva Convention.—A document signed in 1864, whereby civilized nations guaranteed the neutrality of all who tend the sick and wounded in war time. See RED CROSS.

Geneva Cross.—A red cross on a white ground, which by an international convention is recognized as a sign of the military medical and hospital service all over the world. The unauthorized use of the Geneva cross in any form is punishable in time of peace, and its misuse in time of war is held to place the misuser outside the pale of civilization. See RED CROSS.

Gentleman-Cadet.—A title by which are known the young men who are being trained for officers at various military academies.

Glassis.—A sloping embankment usually covered with grass outside fortifications. The angle of the slope is constructed so that it can be commanded by guns of the fort, or by concealed infantry fire.

Guard.—A term usually applied to a small number of men under a non-commissioned officer to act as sentries. "Changing the Guard," is, in peace time, a picturesque ceremony, seen at its best at the Horse Guards, at Whitehall, S.W.

Guerilla Warfare.—This is the term applied to desultory methods employed by savage tribes or combatants inhabiting a mountainous country.

Gulden.—The silver monetary unit of Holland; also called a florin, of an exchange value of 1s. 7·824d. (say, 1s. 7¾d.). One Gulden is usually interchangeable with two FRANCS (which see). Gold coins of 10 gulden are minted and known as Ducats.

Gun Layer.—An artilleryman or non-commissioned officer who is in command of the team when it works the big gun. On smaller guns the gun layer sights the gun. During manœuvres and trials it is quite common for a gun layer to hit the target six times in succession.

Hague Tribunal.—A permanent international court consisting of the representatives of 44 nations, instituted at the suggestion of the Tsar of Russia and sitting at the Peace Palace at the Hague (Holland), built at the expense of Mr. Andrew Carnegie. Since 1902 several important matters have been laid before the Court and settled satisfactorily. In the event of the tribunal being called upon to hear a suit, it is necessary for the contending parties (A) to agree upon the subject-matter of dispute, (B) to appoint arbitrators, and, if necessary, an umpire, (C) to submit the case through counsel or agents. English and French are the languages used at the Court.

Honourable Artillery Company.—A corps dating from the time of Henry VIII., which was re-armed by the War Office in 1888. It numbers about 2,000 men, mostly recruited from the commercial class of the City of London.

Honours of War.— A term used in CAPITULATION (which see), by which surrendered troops are allowed to march out with colours displayed, drums beating, bayonets fixed and swords drawn.

Hostages.—A person held by government or military authorities with a view to secure the due performance of some undertaking; or to whom personal violence is threatened if certain conditions are not fulfilled.

Hydro-aeroplane.—An aeroplane designed to rise off and alight on water.

Hydroplane.—A motor boat, with specially designed flat bottom which skims along the surface of water.

Impediment.—A technical name for the baggage train of an army, which, though necessary, limits its rate of progress. An army on foot cannot progress much more than ten miles a day.

Imperial Light Horse.—An irregular corps of cavalry of the South African War which has been reorganized, at the instance of Gen. Sir Bindon Blood and others. Office: Neville Street, S.W. Only experienced rifle shots are accepted, and every man must be a thoroughly experienced horseman. Members must be between the ages of 25 and 45 years.

Infantry.—Troops that fight on foot and are armed only with hand weapons. The unit of British infantry is the BATTALION (which see).

Interior Lines.—When naval and military operations are conducted in such a manner that the nearer the belligerent forces get to the enemy the more they support each other, or the nearer they get to bases of supplies, the operations is said to be conducted on interior lines. In the history of warfare such operations have generally been more favoured than the opposite operation known as working on exterior lines. In the present war the operation of the British, Belgium and French forces have been very largely upon interior lines.

Interned.—A term applied to a war vessel which takes refuge in a neutral harbour and is unable to leave after 24 hours' notice. A vessel is accordingly "interned" (see NEUTRALITY) until the end of the war, and the neutral authorities must see it is dismantled. Prisoners of war are also said to be interned when they take refuge in a neutral country.

Kilometre.—An international measure of length used on the Continent of Europe. It is about three-fifths of a mile or 936 yards. "Kilometre" means 1,000 metres, a metre being about 39·3 inches.

Knots.—A term used to designate the speed of ships; "25 knots" means that a ship is capable of travelling 25 nautical miles an hour. The nautical mile is 6,080 feet, as against 5,280 of the statute mile. About 25 knots is a speed of a very fast "Dreadnought." A fast torpedo-boat destroyer often has a speed of 30 knots (34½ miles).

Kopeck.—A small Russian copper coin worth one-hundredth of a ROUBLE (which see).

Krone.—The silver monetary unit of Austria-Hungary. It has an exchange value of 10d. and is divided into one hundred parts, called heller.

Landstorm.—A name applied to the Dutch Army Reserve. The Germay Army Reserve is called Landsturm.

Landwehr.—A German cavalry force equivalent in organization to the English yeomanry.

Last Post.—A bugle signal used in the British Army signifying the time for retirement has come. It is usually sounded at 10 p.m. The Last Post is also sounded over the grave at a military funeral.

Legal Tender.—A term applied to the status of various kinds of coinage. When paying debts in peace time, gold and Bank of England notes are legal tender for every purpose and cannot be refused by creditors, except that no one can be compelled to give change. Silver in peace times is not a legal tender for sums over £2, nor is bronze for sums over 1s. On the proclamation of war the Government issued paper money which was made legal tender by Act of Parliament, and at the same time Postal Orders were made legal tender.

Legion of Frontiersmen.—An irregular force of horsemen raised by Col. Driscoll, D.S.O. from among men who have seen active service in various parts of the British Empire, and especially on the frontiers. The headquarters is at 6, Adam Street, Strand, London, W.C. They have offered the services of 5,000 trained men for the war.

Levee en masse.—The spontaneous rising and arming of otherwise non-belligerent inhabitants against the enemy. Such men have the rights and privileges of belligerents.

Lieutenant.—A rank in the Army and Navy. In the Army the junior commissioned officer is known as second lieutenant, and his pay varies from 5s. 3d. to 6d. 8d. a day. In the Navy, the naval cadet or midshipman of six years combined training and service is entitled to the rank. The pay of the naval lieutenant is from £182 to £292 per annum.

Lights Out.—A bugle signal of the Army, sounded at about 10.15 p.m.

Lines.—The term applies to various phases of military operations. "Regiments of the Line" are those which are kept in a high state of efficiency and usually ordered immediately to the front on proclamation of war. The honour of being on the "right of the line" in the British Army belongs to the Royal Regiment of Artillery. "Lines of communication" are guarded roads, usually railways, along which our reinforcements and supplies travel from the military bases to the fighting front. When an army cuts such a line of communication the belligerent army is seriously impeded. The lines of communications are often sea routes, as was often the case in the Peninsula War, when Wellington kept in touch with his base, *i.e.*, England, by altering his disembarkating points as he proceeded on the campaign. When an army is in camp the tents of the various regiments are arranged in "lines" across which the other regiments are not supposed to pass. See also EXTERIOR LINES.

Lira.—The silver monetary unit of Italy, and the exact equivalent of one FRANC (which see).

Major.—The title of the lowest rank of field officer in the army. An unmounted major is known colloquially as a "mud major." The major assists the commanding officer in all matters of routine and discipline. His pay varies according to the regiment from 13s. 7d. to 18s. 6d. per day.

Mark.—The silver monetary unit of the German Empire. It has an exchange value of 11·7483d. (say, 11¾d.), and is divided in one hundred parts called pfennige. German gold coins of 10 and 20 marks are minted.

Martial Law.—A code of procedure by which all the ordinary functions of police and magistrates are exercised by military

authorities. Martial law must be duly proclaimed by legal processes, and when it is proclaimed the martial authorities are in supreme command of the proclaimed districts and may take any means whatever that are justifiable to secure the success of military operations, the passage of troops, the protection of a district, and the peaceable behaviour of citizens. Under martial law offenders may be shot. The Defence of the Realm Act which was passed by Parliament since the declaration of war constitutes a modified form of martial law, giving the military authorities ample powers to conduct military operations, but not at the same time abrogating the common-law rights of citizens.

Merchant Cruisers.—A commercial vessel, usually an Atlantic "liner" which, in return for a subsidy granted to the owner for carrying the British mails, is held at the disposition of the Admiralty for hire or purchase in time of war. When taken over by Government they are converted into "armed cruisers" and mainly used as transports for troops.

Midshipman.—The highest rank of petty officer on board a ship of war, next below that of lieutenant, who holds the king's commission. Midshipmen are educated at the Royal Naval College. When they have passed all tests, they are ready for promotion to a lieutenancy.

Mine-Layers.—A term used to describe a ship, not necessarily built for naval purposes, which carries a cargo of explosive floating mines and disposes of them at various points in the vicinity of harbours and in shallow seas. These mines are so constructed that they explode on coming into contact with a vessel. These acts of hostility are circumvented by means of mine trawlers, which during the present war have been steam trawlers specially commissioned by the British Admiralty for purposes of sweeping the seas where mines are suspected to be laid.

Mobilization.—The process by which an army or navy is converted from a peace to a war footing. The visible sign of mobilization is the calling out of reservists. A well organized force is always ready for rapid mobilization, and not only has the means at hand of summoning men to their regiments or ships, but provides for them clothing, feeding, etc. Mobilization also includes the carrying out of definite plans relating to the disposition of men and ships all carefully thought out in advance. Partial mobilizations, conducted under another guise, are often conducted in times of peace; but complete mobilization is directly connected with war. The mobilization of Russian troops was the nominal cause of Germany declaring war against Russia.

Morale.—A term applied to the spirit that animates an army, the sum total of the psychology of each soldier composing it. Morale may be determined by an initial success or failure, and its quality may be a deciding factor in the outcome of a war.

Moratorium.—A legalized process announced by Royal Proclamation by which the acceptors of bills of exchange are absolved from meeting them when they become due, during the terms of moratorium. On the suspension of the London Stock Exchange, due to the declaration of war, a short Act of Parliament was put through with the design of affording substantial relief in regard to a great number of financial obligations.

Mounted Infantry.—Infantry who are mounted on horses for the express purpose of facilitating movement, as distinguished from cavalry, in which man and horse are trained together as fighting units. See CAVALRY.

National Rifle Association.—The organization which seeks to promote the efficiency of rifle shooting in all branches of His Majesty's forces and also amongst civilians. The headquarters are Bisley Camp, Brookwood, Surrey, where an annual shooting competition takes place for the coveted King's Prize—the blue ribbon of shooting.

Naturalization.—The process by which a claim is made to the possession of British citizenship. Persons are deemed to be British subjects if born in His Majesty's dominions, whether of British or of Foreign parents, or if children or grandchildren of natural-born British subjects, wherever born. The ordinary way of becoming a British subject is by fulfilling the requirements of the "Naturalization Act, 1870." The applicant must either have resided in the United Kingdom for a term of not less than five years, or have been in the service of the Crown for a similar period. He must also furnish evidence of his intention, when naturalized, either of residing in the United Kingdom, or of serving under the Crown. All applications for certificates of naturalization should be addressed to the Secretary of State for the Home Department.

Naval Marriages Act, 1908.—This Act provides that any officer, seaman, or marine borne on the books of one of His Majesty's ships who wishes to marry may, if the marriage is to take place at a register office or a Nonconformist registered building, give notice to his commanding officer, who after the lapse of twenty-one clear days, can issue a certificate for the marriage. The other party must give notice in the usual way to a registration officer in the district in which she resides. If the marriage is to take place at a church of the Church of England, the chaplain or commanding officer must publish the banns on board the ship on three successive Sundays: he can then issue a certificate of publication of banns. The banns must also be published in the church in which the marriage is to take place. No marriage by licence can take place under this Act.

Navy List. — An official publication issued monthly by authority of the Admiralty, giving details of the ships and officers in the Royal Navy serving at home and abroad.

Neutrality.—When a nation is at war it is obligatory for the belligerent parties to notify all other Powers that they are engaged in hostilities. And it is the duty of such Powers, not taking part in the war, immediately to issue a proclamation of neutrality, warning their citizens that no assistance must be given to belligerents. The ships of neutral nations are entitled to go about their business in the usual way provided they are not carrying contraband of war (see CONTRABAND), but they are liable to be searched by belligerent ships. Belligerent ships may not be fitted out in neutral waters, but if they are driven by force of circumstances in a neutral harbour they may be supplied with sufficient coal to enable them to proceed on their voyage, but they must leave a neutral port within 24

hours or be "interned" for the rest of the war. If combatants seek refuge or accidentally enter neutral territory they also must be interned. See INTERNED.

Non-Combatant.—A term applied to civilians, men, women, and children, who do not take an active part in a war, and who, if found by an enemy engaged in peaceful occupation and not in possession of arms, are entitled to elementary rights of protection according to the established usages of civilized warfare. International Law guarantees them their lives and property, and that they shall not be required to take part in the military operations of the enemy. They are liable to provide supplies (which will be paid for by receipt), they may be called upon to act as guides, and they may be required to do services for the enemy outside their ordinary work. They are under martial law, and any disobedience is punishable with death.

Objective, in strategy, is the town, fortress, arsenal or other object aimed at, the occupation of which is deemed to have a decisive effect. In 1870 Paris was the objective of the Germans, and Berlin the objective of the French.

Orderly.—A soldier or non-commissioned officer told off for routine duty. Such duties are usually undertaken by all the men in turn.

Paras.—A small Servian copper coin exactly equal to the French CENTIME (which see).

Parliamentaire.—An unarmed person deputed to approach the enemy under a flag of truce, accompanied by a bugler and interpreter, to open negotiations, or deliver a message. A parliamentaire's person is inviolate, but if he should be accidentally injured, it is at his own risk.

Park.—An arrangement of artillery and transport wagons in a close well-ordered formation.

Passport.—A document issued by a military commander authorizing an enemy subject to travel unmolested within the district occupied by his forces. See also SAFE CONDUCT.

Patrol.—A small body of men, usually cavalry, sent out for the purpose of gaining general information as to the presence of the enemy and the nature of the surrounding country.

Periscope.—An attachment above the deck of a submarine consisting of a lense and mirror, whereby those on board can observe their surroundings when the vessel is submerged. See SUBMARINE.

Perper.—A Montenegrin silver coin corresponding exactly to the Austrian KRONE (which see).

Prince of Wales's National War Relief Fund.—A fund started at the instance of H.R.H. the Prince of Wales to deal with all hardship, whether caused directly through war, casualty, or indirectly through the dislocation of trade and industry that inevitably trails in the wake of war. It reached a total of £1,000,000 within five days of its organization, which is largely in the hands of Mr. C. A. Pearson, H.R.H. being treasurer.

Prisoner of War.—The term applied to combatants and non-combatants of the enemies' nationality which are either taken in the field of battle, or are arrested under various circumstances. A large number of German and many Austrians have been arrested in Great Britain and detained as prisoners of war on the ground that they were reservists about to proceed to join the enemies' forces.

Prize Court.—A court organized in connection with the Admiralty Division of the High Court of Justice to condemn as prizes any enemies' ships taken in warfare. The Court hears evidence as to the capture and nationality of the ship, and may order its cargo to be disposed of under the rules of equity, innocent third parties owning such cargo not forfeiting their rights. The value of the ship, when finally disposed of, becomes "prize money," and is divided amongst those who assisted at its capture.

Range Finders.—Apparatus for determining the distance of an object to be fired at either of a portable character or attached to field guns, etc. The range finders on big guns are generally effective up to a distance of 6,000 yards. See also SIGHTS.

Railway and Engineer Staff Corps.—A semi-military organization composed of the general managers of British railway companies, forming part of the national mobilization plan. On the declaration of war the Corps took over the control of the railways to facilitate the movement of troops and supplies and at the same time steps were taken to guard the railways by Territorials.

Rank, Naval and Military.—All officers in H.M. Forces bear distinctive titles of rank, and generally carry out distinctive duties. These have been detailed in this chapter under their several heads. The officers in the Army rank as follows: Field-marshals, generals, lieutenant-generals, major-generals, brigadier-generals, colonels, lieutenant-colonels, majors, captains, lieutenants, second lieutenants. The officers of the Navy are: Admirals of the fleet, admirals, vice-admirals, rear-admirals, commodores, captains, commanders, lieutenants, sub-lieutenants, midshipmen.

Reconnaissance in Force.—An advance of a considerable body of troops detached from a main army with a view either of discovering the enemy's position, or with the purpose of misleading him.

Reconnoitring.—The military technical name for scouting. A reconnoitring party is sent out for the purpose of gathering information, and its business is to return with the information without having revealed its presence to the enemy.

Red Cross Society.—An organization embodying under one name and administration a number of hitherto separate societies, formed in 1905. It can call upon 60,000 persons, many of them highly trained, to undertake field ambulance and hospital work. The British Red Cross Society does not exist to undertake itself the whole work of administering to the sick and wounded. It is purely a contributory body. In time of war it would act under the directions of the Admiralty and the War Office, and its activities are limited by the nature of the war and of the climatic conditions under which it is being fought. The British Red Cross Society is recognized by the War Office and the Admiralty as the organization responsible for the Red Cross Movement throughout the British Empire, and the terms of the arrangement between the heads of the Services and the Society is included in "Field Service Regulations." Offices: 9, Victoria Street, London S.W.

Reinforcements.—Troops held in reserve and hurried forward to assist a weak point in a line of battle at the critical moment.

Relief Fund.—See PRINCE OF WALES'S NATIONAL RELIEF FUND.

Requisition.—A legal request made by the military for whatever assistance may be needed for the work of the Army in the way of food, vehicles, animals, or accommodation. See also COMMANDEER.

Reveillé.—French word used in the Army to signify the first bugle call of the day. It means in French: Awake!

Rouble.—The silver monetary unit of Russia of a value of 2s. 1½d. It is divided into one hundred kopecks. Gold coins of 5, 7½, 10 and 15 roubles are in circulation.

Royal Aero Club.—The body, in alliance with the International Aeronautic Federation, which controls aeronautics in Great Britain and grants certificates of proficiency to aviators and airships and balloon pilots. Recognized by Government, as all naval and military aviators have to pass Aero Club tests before being accepted for the Services. Chairman: the Marquess of Tullibardine, D.S.O. Secretary: Mr. Harold Perrin, 166, Piccadilly.

Royal Artillery.—A famous regiment in the British Army, known as the Royal Regiment of Artillery. It is the largest single regiment of the British Army, costing in time of peace the sum of £1,129,000 for equipment and maintenance. It is divided into Royal Horse Artillery, headquarters Woolwich, with 26 batteries; Royal Field Artillery, headquarters Woolwich, with 147 batteries and 6 depots; and the Royal Garrison Artillery consisting of 9 batteries of the mountain division, all stationed in India; and 87 companies, 12 heavy batteries and 4 depots, stationed in all parts of the British Empire. There is also a special reserve of the Royal Garrison Artillery and Territorial Artillery made up of various units. In the Royal Horse Artillery every man is mounted. The Royal Garrison Artillery possess what is believed to be the most powerful guns in the world, including heavy guns of 120 tons, firing a projectile 16 inches in diameter. The 12-inch gun, however, is that generally relied upon.

Royal Flying Corps.—A military organization embracing all concerned with the Army's air-craft, i.e., aeroplanes, kites and balloons (not airships). Headquarters: South Farnborough, under Major (Temporary Lieut.-Col.) Trenchard, C.B., D.S.O. Stations at Montrose, Salisbury Plain, Portsmouth, Dover. Controlled by Department of Military Aeronautics, War Office. Director General of Military Aeronautics, Colonel (Temporary Brig.-General) Sir David Henderson, K.C.B., D.S.O. The R.F.C. embraces the Military wing, the Aeronautical Inspection Department, and the Air-craft Park.

Royal Marines.—An army regiment which costs the nation in peace time a sum of £802,000 a year. It supplies "soldiers and sailors too" to the ships of the Royal Navy. The divisions are based on Chatham, Portsmouth and Plymouth, and there is a depot at Deal. The Royal Marines are primarily a landing force, and they have done excellent service on land during many of our "little wars."

Royal Naval Air Service.—A naval organization embracing all concerned with naval aircraft, i.e., airships, seaplanes, and land-going aeroplanes. Headquarters, Sheerness, under Captain Scarlett, R.N. Seaplane stations at Calshot, Isle of Grain, Felixstowe, Yarmouth, Dundee and Cromarty, and a Naval Flying School (land machines) at Eastchurch, Isle of Sheppey, Kent. Has a "mother" ship, the "Ark Royal," building. Controlled by the Air Department of the Admiralty, Whitehall. Director of the Air Department Captain Murray Sueter, R.N.

Safe-conduct.—A document issued by a military commander authorizing its holder to pass through a zone of military operations. See also PASSPORT.

St. John Ambulance Brigade.—An organization for giving first aid to the injured. The brigade has 4,150 members mobilized, while there is a roll of 2,000 men waiting to sign at a moment's notice.

Scout.—A soldier specially trained to act on his own initiative and sent out to gather useful information.

Seaman.—Men in the Royal Navy are rated as able-bodied, ordinary or leading seamen. Their annual pay varies from £23 to £43.

Seaplane.—The Official naval name for a hydro aeroplane which should be sufficiently big and powerful to stand use at sea. It is an aeroplane fitted with one or more floats which support it when on the water, and the floats are fitted with ridges which facilitate ascent from the sea.

Sergeant.—A non-commissioned officer who is often described as "the backbone of the Army." His pay varies from 2s. 4d. to 3s. 4d. a day. There are also ranks known as sergeant major (who is the leading sergeant of a regiment), and quarter-master-sergeant (who has charge of stores, etc.).

Siege Gun.—Heavy guns requiring as many as 32 horses for their transport, which are used against strongly fortified positions.

Sights.—The attachments of a firearm along which the object aimed at is aligned with the eye. A rifle has a fore-sight at the end of the barrel and a back-sight which is adjustable for different ranges. "Service sights" are those used with army weapons, but in certain target competitions at Bisley, etc., very complicated apparatus is used to secure the greatest possible accuracy of aim. See also RANGE FINDERS.

Small Arms.—Defensive and offensive weapons carried by a soldier or sailor, and when firearms, distinguished from Artillery (CHAP. V.). The small arms usually carried are rifle and bayonet, sword, lance, cutlas and revolver. Cavalrymen carry carbines, or a shortened rifle. The Government factory is at Enfield.

Spies.—A relative term interchangeable with SCOUT (which see). Spies, however, are known to be sent by enemies in preparation of war, and maybe years before the outbreak of hostilities. Spies captured in peace time are liable to penal servitude; in war time, they are liable to be shot.

Squadron.—A small body of cavalry; also a group of ships forming part of a fleet. In the Royal Flying Corps, a squadron is also a unit commanded by a Major. It consists

of 12 aeroplanes (and 12 in reserve), "Flying Officers," and 3 "Flight Commanders," with 12 reserve "Flying Officers." Subdivided into 3 "Flights of 4 aeroplanes each (plus reserves). Each squadron is a complete unit with motor transport vehicles.

Strategy.—The means employed by a commander to bring the enemy to battle. The main objects of strategy consist in taking advantage of superiority in numbers, position, equipment, etc. Naval strategy is in principle the same as military strategy but is differently conditioned. The range of action, of a fleet, for instance, is determined by fuel, while that of army is limited by endurance and commissariat. Naval strategy to be effective must be offensive; military strategy may be successful on purely defensive lines; but ships lying in harbour can accomplish nothing. A fleet may leave its base without reference to its line of communications while an army may not. Strategic points, such as fortresses, defiles, bridges, junctions, roads, etc., are of importance in so far as they assist the commander in developing his strategy or hinder the strategy of the enemy. Decisive strategic points are places the possession of which is vitally important.

Strength, On the.—A term applied to the status of the wives of soldiers. If the marriage has been sanctioned by the rules of the regiment, the wife is said to be "on the strength," and receives an allowance, or lives with her husband in "married quarters." During the war all wives and families of soldiers on active service will be regarded as on the strength and will be duly cared for.

Submarine.—A peculiar form of boat designed to progress either on or under the surface of the water. In naval warfare their use is to ram a big ship of the enemy, or to fire torpedoes against it. They are also used to enter harbours unobserved, and with a view of destroying harbour booms and other defences. The French have developed this arm of naval offence to a very high degree of efficiency, and indeed it is supposed that the basic idea of the submarine boat originated in the fertile brain of the great French novelist, Jules Verne, who wrote "Twenty-thousand Leagues Under the Sea." The German name for submarine is "Unterseeboot," whence the designation "U" for this class of craft.

Tactics.—The means employed by a commander to defeat the enemy when, through the employment of strategy, he has been brought to battle. See STRATEGY.

Transport.—The equipment of an army which attends to the carrying of supplies to the front and the bringing of the wounded to the rear. A vessel carrying troops is also called a transport.

Trooper.—The title of a horseman in the cavalry, and equivalent to "Private" in infantry regiments.

Truce, Flag of.—A white flag which is used in warfare as a sign that the person showing it wishes to make an authorized communication with the enemy. Bearers of such flags, who may be accompanied by a bugler and an interpreter, must be courteously received and treated. They may be blindfolded and detained pending the preparation of a reply.

Uhlan.—A German cavalryman.

War Crime.—A technical expression for the violation, by soldiers or civilians, of the recognized rules of warfare illegitimate hostilities, espionage and marauding. Instances are the use of forbidden weapons, killing the wounded, abuse of a flag of truce, abuse of the Red Cross badge, poisoning water supply, looting, etc. Certain civil offences become war crimes during hostilities. Summary execution or punishment of such offenders is prohibited. They must be duly tried and convicted.

War Office.—The department of State which organizes the equipment and training of the Army. The headquarters are at Whitehall.

Warrant Officer.—An officer in the Army or Navy who is between the rank of a commissioned and non-commissioned officer. He wears a sword, but is not entitled to a salute.

Waterplane.—A hydro-aeroplane, but not necessarily a seaplane.

Zeppelin.—A rigid airship of large size used by Germany. See AIRSHIP.

SUTTLEY & SILVERLOCK, Ltd., Printers, Blackfriars Road, London, S.E.